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The Evolution of Military Officer Personnel Management Policies: A Preliminary Study with Parallels from Industry

James H. Hayes

A Project AIR FORCE report
prepared for the
United States Air Force

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PREFACE

Personnel management and compensation systems affecting the military officer and his career are coming under increasing examination by the legislative and executive branches of government. Particularly visible because of its growing portion of the personnel budget is the nondisability retirement system, but changes to the up-or-out promotion and tenure policy have also been proposed. The Defense Manpower Commission has suggested changes to both the retirement and the up-or-out systems that may induce a restructuring of the personnel practices of the military services.

To gain perspective on the current debate over personnel and compensation policies, one should understand not only the difficulties caused by current practices but also the problems that these practices were designed to solve. This study provides this perspective by documenting the evolution of officer personnel management policies during the history of the United States from Colonial times to the present, with emphasis on the period since the Spanish-American War. It examines the "required" number of properly trained officers during both war and peace. Because the personnel practices of business firms may be held up as examples of efficiency for the services, the historical development of industrial management is also examined.

This report was originally prepared for the Deputy Chief of Staff, Personnel, Headquarters, United States Air Force, under the "Officer Personnel Management Study" project of the Project AIR FORCE Manpower, Personnel, and Training Program. It should be useful to the current DCS/Manpower & Personnel staff and counterpart organizations in other parts of the Department of Defense in determining future promotion and retirement systems and management problems related to them.

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SUMMARY

There is no unified body of literature that addresses the historical development of the officer personnel management system used by the armed forces. A framework to unify so complex a subject was devised by tracing the evolution of officer management and its comparison with industry through six historical periods.

The first is the Colonial period, which includes the Revolutionary War, the Louisiana Purchase in 1804, and the War of 1812. The period was a turbulent one for the military; and for nascent industry it saw the end of the mercantile restrictions imposed by England that tended to inhibit the growth of industry and, as a natural consequence, inhibited the growth of a managerial class. Personnel management was unknown in either the military or industry, which is not surprising because there was no complex organizational structure that needed several levels of managers. There was a simple employer/worker relationship in industry and the factory, such as it was, was in one building. Army organization was also rudimentary, consisting of an aggregate of regiments. Equipment was simple and the major logistic requirements were straightforward needs for food, powder, and shot. An important personnel management event for the military was the founding of West Point, which laid the basis for the notion of a yearly cohort of officers (although such a concept was not enunciated by the founders). The Navy was an aggregation of individual vessels whose support was begrudged by a Congress which saw no need to support a force deemed unessential for the defense of the homeland.

The second period extended to the Civil War and witnessed the growth of the nation to essentially its present size. From an industrial standpoint, it marked the introduction of railroads, a beginning of the westward movement, and an expanding marketplace. Foundations of personnel management were discernible in the railroad industry; their increasing size created a demand for managers to

handle the large numbers of employees and a national scope of operation. In the military, the Mexican War saw the organization of the Army expanded to include divisions. Although there was difficulty in finding officers qualified to command and manage these units, there was still little perception of a need for a comprehensive personnel management and development policy. Equal pay for equal rank and equal opportunity surfaced as problems, but the major concern remained adequate promotion opportunities. With this problem foremost, the concept of forced retirement was introduced to speed up promotion and provide an even flow of officers through the corps. The notion of forced retirement did not enter industry until much later.

The third period encompassed the Civil War and its aftermath. This was a time of exuberant growth, particularly for railroads. For the services it was the Army's "Dark Ages," a period of Congressional neglect but intensive Indian warfare; the Navy was "a paper fleet" made up of rotting wooden ships, and the Congress refused to appropriate money for new ones. Nevertheless, the truly professional officer emerged in this period, as did a demand on his part for a structure to allow him to grow and to carry out his mission. Personnel management slowly developed: in industry it was restricted to workers; in the services it was essentially stagnant except for professional education. There was a marked growth in the number of military schools. The widespread military service created by the war meant that some of the practices developed in the military were carried over into business.

The fourth period, to the beginning of World War I, was a curious one for the military. On the one hand, the Army won the war with Spain, but supply and other scandals led the nation to believe that "the men who had guided the Army to victory [were] incompetents and criminals...." Although this was an extreme and unfair conclusion, the resultant reforms instituted under Secretary of the Army Elihu Root were needed and beneficial. At the same time, the Navy emerged as a proven instrument of national policy and henceforth enjoyed more favorable Congressional attention.

The fifth period, World War I, saw the marriage of industry and the military to an unprecedented extent. In industry, a perceptive writer forecasted the necessity to manage managers. In the military, the extraordinary demands for personnel led to the Defense Act of 1920, with comprehensive provisions "providing for the Officers' Reserve Corps, Reserve Officers' Training Corps, Enlisted Reserve Corps, and the National Guard." The Navy adopted promotion by selection and an "up-or-out" system of management. The emerging Air Force, though still a part of the Army, created its own special problems for the personnel manager. For the first time, there was positive evidence that personnel practices developed by the military were adopted by big business, although they were applied only to the rank and file.

The last period, World War II to the present time, led to the current personnel system employed by the armed forces. Moreover, the period resulted in an unparalleled interface with industry which, in turn, has witnessed an explosive growth in its own managerial needs and a proven system for dealing with the problems of its managers.

ACKNOWLEDGMENTS

I wish to thank Bernard Rostker and his successor as director of Rand's Manpower, Personnel, and Training Program, C. R. Roll, for the opportunity to do this study and for critical insights that added clarity to the presentation of a complicated subject. This study could not have been made without the expert knowledge and persistence of Barbara E. Quint, Shirley L. Lee, Barbara G. Neff, and E. R. Van Driest in locating data, books, and obscure papers.

Invaluable suggestions in the course of the writing were made by colleagues and friends, including Cheryl A. Cook, Harvey A. DeWeerd, Glenn A. Gotz, and Colonel William A. Jones, USAF (Ret.). I am deeply appreciative of the constructive nature of these suggestions for the improvement of the manuscript.

A special thanks is reserved for Jeanne Dunn. Her editing of the manuscript has eliminated awkward wording and has added clarity and precision to the final work.

Finally, I wish to acknowledge the dedication of my secretary, Maria C. Bustamante. Without her patience in handling the several revisions of the original manuscript, the labor of everyone else would have been to no avail.

It goes without saying, of course, that the historical judgments that I have made, and the inferences drawn from them, are, if incorrect, my sole responsibility.

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CONTENTS

PREFACE	iii
SUMMARY	v
ACKNOWLEDGMENTS	ix
Chapter	
I. INTRODUCTION	1
Purpose	1
The Problem	1
The Genesis of the Problem	2
The View of Industry	3
Framework for Discussion	5
II. THE COLONIAL PERIOD	11
Introduction	11
The Military	12
Industry	18
An Overview	21
III. THE PRE-CIVIL WAR PERIOD	28
Introduction	28
The Military	29
The Navy	37
Industry	40
An Overview	42
IV. THE CIVIL WAR PERIOD	47
Introduction	47
The Army: From Victory to the Dark Ages ...	48
The Navy: From Victory to Stagnation	55
A Significant Period	61
V. THE SPANISH-AMERICAN WAR PERIOD	66
Introduction	66
The Army	66
The Navy	74
Management of Industry	79
An Overview	84
VI. THE WORLD WAR I PERIOD	93
Introduction	93
The Military	94
Industry	105
An Overview	110

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VII.	THE WORLD WAR II PERIOD AND AFTER	116
	Introduction	116
	The Army and the Army Air Service	118
	The Navy	124
	Service Developments After World War II	129
VIII.	INDUSTRY AND THE SERVICES AFTER	
	WORLD WAR II	140
	The Context	140
	Personnel Acquisition	141
	Retention of Personnel	150
	Retention and Allied Issues in the	
	Military	156
	The Training Process	163
IX.	CONCLUSIONS AND IMPLICATIONS	179
	BIBLIOGRAPHY	193

I. INTRODUCTION

PURPOSE

The purpose of this report is to draw lessons useful to the management of the officer personnel of the U.S. armed forces from an analysis of the historical development of those practices and their relationship to industrial practices.¹ *

In the context of this report, an officer/manager "is responsible for organizing, planning, leading, and controlling"² the activities or some phase of the activities of a military or industrial organization. It must be added for the officer in combat that he "is peculiarly expert at directing the application of violence under certain prescribed conditions"³ and "it must be remembered that the skill of the officer is the management of violence not the act itself."⁴

There is somewhat more emphasis upon the Army than upon the Navy, Marines, and Air Force. The reasons are straightforward. Until the Spanish-American War, the Navy tended to receive even less Congressional support than did the Army, thereafter possibly more attention. The Air Force did not become a separate service until after World War II. Before that time it was part of the Army. The Marine Corps has always been a small, elite force, particularly before World War II. It has generally been considered as part of the Navy for budgetary and other considerations.

THE PROBLEM

The major officer personnel management⁵ problem of the armed forces in their more than 200 years of existence has been the provision of officers trained for combat in the numbers needed to meet the demands of the state of the military art of the particular war the nation was fighting. More succinctly, the problem has been one of quality versus quantity, where quality means well-trained for war.⁶

*Footnotes appear at the end of each chapter.

Promotion became related to quality because slow peacetime advancement did not permit officers to serve in and experience the problems of higher command which inevitably came with wartime expansion. Slow promotion, therefore, inhibited the development of the completely trained officer who could cope with the crises of combat and still perform efficiently.

The problem of quality also became related to the issue of who should control the armed forces in time of war. Should there really be a large well-trained officer corps to command the armed forces in time of war? Or should there be a small corps which would give way in time of war to a large but untrained corps of militia officers? This was largely an Army problem because there was no substantial Navy until the Civil War, and no sizable naval militia until late in the century. By the time the Air Force was created, the nation had resolved the issue by a series of legislative acts.

Finally, peacetime problems like pay scale, relative rank among the services, and the role of the specialist appear and change with the passage of time.

THE GENESIS OF THE PROBLEM

The American people have consistently distrusted the military both as an organization and as individuals.⁷ Less than a year after the conclusion of the Revolutionary War, the Congress resolved on 2 June 1784:

And whereas, standing armies in time of peace are inconsistent with the principles of a republican government, dangerous to the liberties of a free people, and generally converted into destructive engines for establishing despotism ...

Resolved, that the commanding officer be and he is hereby directed to discharge the troops now in the services of the United States, except twenty-five privates to guard the stores at Fort Pitt and fifty-five to guard the stores at West Point and other magazines, with a proportionable number of officers, no officers to remain in service above the rank of captain.⁸

This distrust has meant that the quantity of regular officers has always been tightly controlled. It has also been a result, and a cause, of the poor opinions of them in the literature. In 1800 officers were described as "swaggerers, dependents, decayed gentlemen and others fit for nothing else...."⁹ In 1834 "the wealthiest, best-educated, and ablest men seldom adopt[ed] the military profession...."¹⁰ Even before the beginning of the first modern war, the Civil War, "to be an officer of the regular Army was, popularly, to be an idle gentleman, well-paid for doing nothing, scarcely worthy of respect, and assuredly not of esteem."¹¹ The victory in the Spanish-American War did little to change the image because the scandals which surrounded the Army procurement of beef damaged the reputation of the members of the officer corps even though investigation after the war was to show that these charges were largely untrue.¹² More recently, "the intelligence, scope, and imagination of the professional [officer] have been compared unfavorably to the intelligence, scope, and imagination of the lawyer, the businessman, the politician. This presumed inferiority has been variously attributed to the inherently inferior talents and abilities of the persons who became officers [and to] the organization of the military profession which discourages intellectual initiative...."¹³

THE VIEW OF INDUSTRY

The businessman, unlike an officer, gets daily experience in "combat." He must meet and solve daily crises. Therefore, his success is obvious and his quality is obvious. The successful managers are promoted rapidly (compared to the military).

During the Civil War, the government gave direct commissions to experts who knew how to use and to maintain the railroads which became a vital link in supplying troops in the widely scattered theaters of operation. The use of civilians was even more pronounced during the Spanish-American War because troops were mobilized and had to be outfitted with unprecedented speed. Finally, during the two World Wars there was a union of industry and the military which has persisted to this day.

The assistance of businessmen was invaluable to the military but, inevitably, it created another problem. Because businessmen have generally been admired and the military distrusted in America, the question arose as to whether business did not do a better job of managing its managerial personnel. The same question is asked today.

A contemporary study that sampled over 20,000 individuals found that half the government respondents and two-thirds of those in industry thought that the overall competence of top management was better in industry than in the government, where government was defined to include large numbers of military officers of high rank.¹⁴

The poor opinion of the abilities of officers is transferred in some mysterious manner to the process of personnel management of officers. Certainly at least one senator believes that military personnel management is less innovative than in the civilian sector.

Senator Bartlett: "[With respect to this new personnel legislation,] the private sector has had quite an experience also with personnel and with management practices on a much more varied basis than has the military. The military has been sort of consistent and constant. There hasn't been as much variation or innovation, and therefore, to get fresh ideas or changes to be made, I think it would require quite an input from the nonmilitary and civilians."¹⁵

For the Army, in particular, these views about civilian personnel management have meant that the nation for most of its existence has believed that militia officers could do just as well as regular officers. Thus, the regular officer corps for many years had to struggle for its existence and a theme runs through this work on the constant struggle between the regulars and the militia as to who should control the Army. The Congress has been a major factor in this struggle both because it controls the purse and because at various times it has sided with one or the other group.

In the early days of the nation there was some truth in the notion that the regular officer corps was not fully capable. At the beginning of each of our wars numerous elderly and physically incapable officers had to be relieved of command and replaced by younger officers. Some of these militia were giants like Grant who had been trained at West Point but had resigned and reentered the service via the militia. On many occasions, however, the militia officers proved inadequate, as the burning of our capitol in the War of 1812 demonstrated.

In summary, a major theme permeating military developments has been the constant struggle to provide the required quantity of officers properly trained to function at a high level of excellence.

These military problems appeared very early in our nation's history, whereas the personnel problems of industry managers were not visible until much later. In particular, the problem of elderly and physically incapable officers became apparent as early as the Indian Wars of the 1830s and led to demands for a solution. It was in this context that the first retirement concepts were developed as a means to force out those officers physically incapable of performing under the rigors of campaign in the field. A subject of considerable interest today, military history is replete with examples of formerly excellent officers who became a liability when they stayed on active duty long beyond the time they should have been forced to retire.

FRAMEWORK FOR DISCUSSION

There is no unified body of literature that addresses the historical development of the officer personnel management system used by the armed forces today. Therefore, it has been necessary to find a framework to unify so complex a subject matter. Fortunately, a framework can be found which allows the history and the comparison with industry to be understood in terms of six relatively well defined periods.

The first of these is the Colonial period, which includes the Revolutionary War, the Louisiana Purchase in 1804, and the War of 1812. The period was a turbulent one for the military, and for nascent industry it saw the end of the mercantile restrictions imposed by England which tended to inhibit the growth of industry and as a natural consequence inhibited the growth of a managerial class.¹⁶ Not surprisingly--because there was no complex organizational structure needing several levels of managers--personnel management was unknown for either the military or industry. The relationship in industry was simply employer/worker; and the factory, such as it was, was in one building. Army organization was also rudimentary, consisting of an aggregate of regiments. The equipment was simple and the major logistic requirements were straightforward needs for food, powder, and shot. An important personnel management event was the founding of West Point, which laid the basis for the notion of a yearly cohort of officers, although such a concept was not enunciated by the founders. To all intents and purposes, the Navy was an aggregation of individual vessels whose support was begrudged by a Congress which saw no need to support a force deemed unessential for the defense of the homeland.¹⁷

The second period extended to the Civil War and witnessed the growth of the nation to essentially its present size. From an industrial standpoint it marked the introduction of railroads, a beginning of the westward movement, and an expanding marketplace. The increasing size of railroads created a demand for managers who could handle the problems that arose out of large numbers of employees and a national scope of operation. Foundations of personnel management were discernible in the railroad industry. In the military, the Mexican War saw the organization of the Army expanded to include divisions. Although there was some difficulty in finding officers qualified to command and manage these units, there was still little perception of a need for a comprehensive personnel management and development policy. The major personnel concern was adequate promotion opportunities, although equal pay for equal rank and equal

opportunity also surfaced as a problem. The concept of forced retirement was introduced to speed up promotion and provide an even flow of officers through the corps. The notion of forced retirement did not enter industry until much later.

The third period was the Civil War and its aftermath. This was a period of exuberant growth, particularly for railroads. For the services it was "The Army's Dark Ages,"¹⁸ a period of Congressional neglect but intensive Indian warfare; the Navy was "a paper fleet"¹⁹ made up of rotting wooden ships. The Congress essentially refused to appropriate money for new ships. Nevertheless, the truly professional officer emerged in this period as did a demand on his part for a structure to allow him to grow and to carry out his mission. Personnel management slowly developed: in industry it was restricted to workers; in the services it was stagnant except in the sense of professional education. The period saw a marked growth in the number of military schools. The widespread military service created by the war meant that some of the practices developed in the military were carried over into business.

The fourth period--to the beginning of World War I--was a curious one for the military. On the one hand, the Army won the war with Spain, but scandals led the nation to believe that "the men who had guided the Army to victory [were] in the popular view incompetents and criminals...."²⁰ Though this was an extreme and unfair conclusion, the resultant reforms instituted under Elihu Root were needed and beneficial. On the other hand, the Navy emerged as a proven instrument of national policy and henceforth enjoyed more favorable Congressional attention.

The fifth period--World War I--saw the marriage of industry and the military in a manner unprecedented to that date. For industry, a perceptive writer forecasted the necessity to manage managers as a pressing problem.²¹ For the military, the unprecedented demands for personnel led to the Defense Act of 1920, with comprehensive provisions "providing for the Officers' Reserve Corps, Reserve Officers' Training Corps, Enlisted Reserve Corps, and the National

Guard."²² The Navy moved to promotion by selection and an "up-or-out" system of management. The emerging Air Force, though still a part of the Army, created its own special problems for the personnel manager. For the first time, positive evidence appeared that personnel practices developed by the military were adopted by big business but applied only to the rank and file.

The last period embraces World War II to the present and led to the personnel system employed by the armed forces today. Moreover, it resulted in an unparalleled interface with industry which, in turn, has witnessed an explosive growth in its own managerial needs and a system for dealing with the problems of its managers.

NOTES

1. The related and equally important problem of worker/enlisted man is not treated in this paper.

2. Glenna A. Dod, "Duties, Responsibilities, and Formal Training of Administrative Managers in Business Firms in the Southeastern Region of the United States with Implications for Improving Collegiate Administrative Management Instruction," Ph.D. thesis, University of Southern Mississippi, August 1975, p. 7.

3. Samuel P. Huntington, The Soldier and the State, Harvard University Press, 1959, p. 12. The page citations are generally the same in the paperback version of this book published by Vintage Press.

4. Ibid., p. 13. See also, Department of the Army, Operations, FM100-5, July 1976, p. 3, for a more detailed statement of the duties at particular levels during combat.

5. The words "personnel management" came circa World War II. Their actual origin is obscure.

6. Unfortunately, quality is an elusive characteristic whose only sure criterion is that quality officers win battles. However, officers trained at all levels of command have a better chance of winning.

7. Glenn Porter, The Rise of Big Business, 1860-1910, Thomas Y. Crowell Company, New York, 1973, pp. 1-5, makes the obverse point about big business, i.e., people think businessmen are very capable.

8. William A. Ganoe, The History of the United States Army, revised, Appleton-Century Company, New York, 1942, p. 90.

9. Russell F. Weigley, History of the United States Army, Macmillan Company, New York, 1967, p. 107.

10. Alexis De Tocqueville, Democracy in America, Vol. II, the Henry Reeve text revised by Francis Bowen and edited by Philip Bradley, Alfred A. Knopf, New York, 1960, p. 267.

11. Huntington, op. cit., p. 212.

12. Graham A. Cosmas, An Army for Empire, the United States Army in the Spanish-American War, chapter entitled "Sickness and Scandal," University of Missouri Press, 1971, p. 245. See also Report of the Commission Appointed by the President to Investigate the Conduct of the War Department in the War with Spain, Government Printing Office, Washington, D.C., 1899. This is better known as the "Dodge Report" after its president, General Greenville M. Dodge. In particular, pp. 49-59 dismiss the "embalmed beef" charge, which seems to have been a major allegation of mismanagement.

13. Huntington, op. cit., p. 59. It should be noted that these are not Huntington's views. He is stating an argument of the critics of the officer corps.

14. See Department of the Army, The Executive: Philosophy, Problems, and Practices, a bibliography which summarizes a "Survey of Attitudes of Scientists and Engineers in Government and Industry," U.S. Government Printing Office, 1957. This report represents the findings of the Committee on Engineers and Scientists for Federal Government, and has outlined in broad terms the major areas in which scientists and engineers have expressed an attitude. It is based on the response of 17,439 scientific and engineering personnel employed by the federal government and of 3317 similar individuals engaged in research outside the government. This view is confirmed by W. L. Warner et al., The American Federal Executive, A Study of the Social and Personal Characteristics of the Government, Yale University Press, 1963, a monumental survey of 12,929 civilian and military executives; see especially the opening sentences of the book. In a more humorous vein (but still insightful), an unknown officer is quoted circa 1960 as saying, "Service conditions being what they are today, a girl who marries an officer and a gentleman usually has to commit bigamy." See Colonel Robert Debs Heinl, Jr., Dictionary of Military and Naval Quotations, U.S. Naval Institute, Maryland, 1966, p. 233.

15. "Defense Officer Personnel Management Act, S.2424, to amend titles 10 and 37, United States Code, relating to the appointment, promotion, separation, and retirement of members of the armed forces, and for other purposes," hearings held 9 October and 6 November 1975, and 5 August 1976, p. 206.

16. For a full discussion of this point, see Chester W. Wright, Economic History of the United States, McGraw-Hill, New York, 1949, pp. 85-90.

17. There was no Navy in 1789 when the Constitution gave the Congress the power to "provide and maintain a Navy." The Navy Department did not come into existence until 30 April 1798. Prior to that date such naval activity as did occur was under the control of the War Department. See Charles O. Paullin, Paullin's History of Naval Administration, 1775-1911, U.S. Naval Institute, Maryland, 1968, p. 98, for a fuller discussion.

18. Ganoe, op. cit., p. 298.

19. Paullin, op. cit., p. 339.

20. Graham A. Cosmas, op. cit., p. 245. Oliver I. Spaulding, The United States Army in Peace and War, G. P. Putnam's Sons, New York, 1937, concentrates on the purely military aspect of the Army's activities.

21. E. B. Gowan, The Selection and Training of Business Executives, Macmillan Company, New York, 1918, seems to be one of the pioneer efforts.

22. Lieutenant Colonel Marvin A. Kreidberg and Lieutenant Merton G. Henry, History of Military Mobilization in the United States Army, 1775-1945, Department of the Army Pamphlet No. 20-212, June 1955, p. 380.

II. THE COLONIAL PERIOD

INTRODUCTION

The necessity of a class of officers in the military has never been seriously questioned.¹ War is generally understood to be an ever present possibility and the need for officers has never been denied. However, because professional officers were distrusted and militia officers at first cost nothing to maintain, the issue in the United States was whether to place principal reliance on the regular or the militia officer. The attendant problems became how to assure an adequate supply of officers, make provisions for their training, and assure advancement of the most competent. In other words, to provide quantity and quality in peace and war.

The military situation during the period between the Revolution and the War of 1812 was chaotic and characterized by almost continuous warfare. Despite the hostilities, the nation's leaders and representative bodies could not even decide whether there should be a regular army and navy. As a consequence, the personnel management problem was never raised except by inadvertence and the controversy between the regulars and the militia was born.

There were no plans for mobilization per se--when a crisis occurred, the militia was called out, and when the crisis ended, it was sent home. The various states might or might not send the numbers of militia requested by the central government. It all depended upon the degree of threat they sensed or estimated for themselves from the crisis. This process meant that the problems of providing for an orderly flow of officers was largely solved by simply having the units elect their own officers. For the higher ranking officers, wealth to raise units or political influence in the Congress were more important assets than the military skills needed to train, command, and utilize the units they were going to lead. One suspects that knowledge, technical skill, and tactical judgment were not even considered by those who were responsible for making appointments.

THE MILITARY

The regular Army started as a modest organization of ten companies of riflemen totaling 810 men. Later these ten companies were to become the 1st Continental Regiment.²

Resolved that six companies of expert riflemen be immediately raised in Pennsylvania, two in Maryland, and two in Virginia; that each company consist of a captain, three lieutenants, four sergeants, four corporals, a drummer or a trumpeter, and sixty-eight privates.

That each company, as soon as completed, shall march and join the Army near Boston, to be there employed as light infantry under the Command of the Chief Officer in that Army.

That the pay of the officers and privates shall be as follows: a captain about \$20 a month; a lieutenant about \$13-1/3; sergeant \$8; corporal \$7-1/3; a drummer or trumpeter \$7-1/3; privates \$6-2/3; to find their own arms and clothes.

The Continental Congress
14 June 1775³

The Navy was created on 22 December 1775, when the Naval Committee of the Continental Congress laid before the Congress a "list of officers by them appointed."⁴ These officers were to command four vessels purchased by Congressional authorizations of 13 and 30 October 1775. The number of vessels was increased by two sloops and two schooners purchased before the end of January 1776.⁵

The rudimentary military establishment which was to become the regular Army and Navy posed no major requirements for officers. What was significant for the future was a pattern of politics in the appointment of the naval officers and the underlying philosophy which led to the creation of a Continental Army composed of militia.

When the Naval Committee presented its list of captains and lieutenants⁶ before Congress, "it took no eagle eye to discern the markings of nepotism and sectional influences."⁷ The commander-in-chief of the fleet was Esek Hopkins of Rhode Island, a brother of the chairman of the Naval Committee. The senior captain was Dudley Saltonstall, a brother-in-law of another committee member,

while the junior captain was John Burroughs Hopkins, a son of the commander-in-chief. Fortunately for the Navy, the list of lieutenants also contained the name of John Paul Jones.⁸

Political and sectional considerations were also at work in the appointment of Army officers. Several generals who were appointed from the middle and southern states drew complaints that the New England states were being slighted.⁹ Officers in other grades were appointed because they were friends of important people, without regard to their merits or knowledge.¹⁰

In addition to the political problems, military titles were dispensed with a lavish hand. Baron de Kalb gave his blacksmith the title of captain and allowed that all quartermasters should be addressed as colonel. It must be presumed that human nature undoubtedly led all of these worthies to demand the perquisites which went with the rank given to them. So pernicious was this system of dispensing military titles that the Congress finally resolved that "hereafter it [rank] should not be conferred upon any one on the civil staff of the Army,"¹¹ thereby establishing a dilemma which continued to haunt the Army (and later the Navy) in trying to decide whether essential civilians such as surgeons or steam engine engineers should be given military rank and titles or not. This could be construed as the beginning of the specialist problem, in which, for example, an officer with an essential skill like medicine was prevented from mastering general military skills.

The creation of the Continental Army composed of volunteer militia carried with it two themes, both of which have recurred throughout our national history and are the subject of a national debate at the time these words are being written.

First, economy: the American colonies were much too poor to pay for an establishment devoted solely to war and preparation for war. "Every colonist had to contribute all the energy he could to the economic survival of his colony, and no colony could afford to maintain professional soldiers" and, of course, could not afford the officers needed to assure its continued survival. Therefore the colonies reached back to King Henry II's Assize of Arms.

Moreover, let each and every [free man]...swear
that...he will possess those arms and will bear allegiance
to the Lord King Henry....

The Assize of Arms, 1181¹²

In so doing, the colonies established a popular militia for the Army, even though that idea had died with Oliver Cromwell¹³ and had been shown to be of doubtful efficiency in the wars of Europe. (The personnel management problems experienced by the Army did not occur in the naval militia, created much later, until about the time of the Spanish-American War.¹⁴) In any event, the militia concept for the Army resulted in small regular armies which, in turn, meant smaller officer requirements. And smaller regular forces meant less money needed to be spent.

Second, the United States Army has since the days of the Continental Army been composed of two armies: a regular army of professional soldiers and a citizen army variously known as the militia, National Guard, Organized Reserves, and selectees. Neither the Navy nor the Air Force, which Athena-like emerged full grown from the Army, had this experience to the same degree as the Army.

The effect of this duality has been divisive. Two issues, secondary at the time, began to emerge. They are fundamental to the understanding of the development and utilization of the Guard and Reserve forces as they exist today. First, who should command the Army in a democracy: the professional who is distrusted or the amateur who may lack the requisite knowledge? The effort to balance and harmonize the claims of the rival groups has dominated the issue of officer personnel management with first one group, then the other being in a favored position. The second issue was the manner of assuring the quantity and quality of officers needed. Would the number of officers needed in the units raised by the states be controlled by the state or be established by the Secretary of War or some other authority of the central government? Who would prescribe the standard of quality desired in the officers? In other words, what would be the standards for training and job performance? These questions were left unanswered or vague. As a consequence, they arise over and over again in our nation's military history.

The Congress would have preferred no regular Army or Navy and, therefore, no regular officer corps. One congressional representative declared: "The most fundamental principle in America is that a standing army is not to be tolerated in time of peace."¹⁵ In such an atmosphere the Navy was disbanded, but two disastrous defeats by Indians of two militia armies--under Harmar in 1790 and under St. Clair in 1791--shocked the nation.¹⁶ A committee investigating the disasters reported that the cause was the delay in passing the act which provided for the mobilization of St. Clair's expeditionary force, "the gross and various mismanagements and neglects in the quartermaster's and contractor's departments" and the lack of "discipline and experience in the troops."¹⁷

The Second Congress, which convened on 24 October 1791, was also alarmed by the results of St. Clair's defeat, which emboldened the victorious Indians to more sustained acts of depredation. Therefore, after prolonged discussions, the Congress passed an act on 5 March 1792 providing for the better "protection of the frontiers of the United States" and authorizing the President to more than double the size of the regular Army temporarily at his discretion.¹⁸ These measures led to a victory at Fallen Timbers¹⁹ by regulars and lent weight to those who advocated a regular Army properly led by regular officers.

In addition, the Indian Wars forced the Congress to devise basic legislation to deal with the problems of the regular forces versus the militia. The result was the Militia Act of 2 May 1792, an act which remained in effect for 111 years and established a universal military obligation for all free, white, male citizens between the ages of 18 and 45. It is an obvious speculation that the Congress adopted this device because it seemed to be the best of all possible worlds. There would be no danger of the "man on horseback." As one representative said: "The best feature of our government is its unfitness for war."²⁰ In addition, small regular forces meant economy and the question of who would lead the armed forces in future wars was neatly finessed by making that issue the responsibility of the several states.

Subsequent acts expanded the basic Militia Law in minor essentials, by provisions for arming the militia and by establishing a courts-martial system for the militia. An unwise revision of the Militia Law, on 28 February 1795, contained a provision that the militia, when mobilized, could not be compelled to serve more than three months in any one year. "This amazingly constrictive and unwise limitation was not repealed until 29 July 1861."²¹

A system of enrollment was also prescribed and the work of the militia company commander was defined "to enroll every such citizen [between 18-45 years of age]." After enrollment, the Act provided for the organization of the militia into divisions, brigades, regiments, battalions, and companies by the states and provided that the "militia shall be officered by the respective states."²² The delegation to the states of all power and authority to implement the measure meant that at best there would be as many different standards and procedures as there were states. "At worst, it meant that not only would the state militias be variegated but that they would be inefficient and inept militarily."²³

The result of the philosophy in the Act of 1792 was twofold: it kept regular Army officer requirements small and it made requirements and standards for militia officers virtually impossible to control. In effect it created two armies and assured a struggle as to whether the professional or the amateur would control.

The founding fathers were on the side of the militia and the Constitution did not envisage a separate class of persons exclusively devoted to military leadership. "I am not acquainted with the military profession," George Mason proclaimed at the Virginia Convention and, except for Hamilton, Pinckney, and a few others, he spoke for all the framers of the Constitution.²⁴ These sentiments persisted until as late as World War I. Woodrow Wilson was to reemphasize the importance of the amateur and by inference the nonnecessity for regular officers:

This is an unprecedented war and, therefore, it is a war in one sense for amateurs.... The experienced soldier--experienced in previous wars--is a back number so

far as his experience is concerned.... America has always boasted that she could find men to do anything. She is the prize amateur nation of the world. Germany is the prize professional nation of the world. Now, when it comes to doing new things and doing them well, I will back the amateur against the professional every time.²⁵

For all its ineptness during the Colonial period, the Congress did make one positive innovation which was to assure the Army of a continuous flow of officers as a yearly cohort. Moreover, that flow was to consist of officers of as high a quality as the state of military education would permit. The new flow came from the United States Military Academy, founded at West Point in 1802.²⁶

The original idea for the military academy was not solely Army-oriented. When Alexander Hamilton made his proposal in 1799 he actually suggested the creation of five schools: a fundamental school in which students received instruction for two years in "all the sciences necessary to a perfect knowledge of the different branches of the military art"²⁷ and four advanced schools. After completing the fundamental schools a student would go to one of four advanced schools: engineering and artillery, cavalry, infantry, or naval. This idea was drafted into a resolution by the Secretary of War and was submitted to Congress by President John Adams on 14 January 1800.

In the Congress the services received differing treatment. From the Navy viewpoint the proposal to form a military academy was a failure because the Congress approved West Point but failed to approve a naval school. In the next 45 years, the Congress refused the Navy's request for a school more than 20 times.²⁸ This was but one example during the Colonial period of the neglect of the Navy by a Congress who seemingly believed the protection of the nation's sea approaches to be unimportant.

As the Revolution was drawing to a close in the summer of 1781²⁹, the Continental Navy had been all but eliminated. Only three vessels were in commission and two were under construction,³⁰ and there were only five captains and seven lieutenants in the Navy proper.³¹ After the Revolution, the Navy was disbanded and was not reestablished until 30 April 1798, when war with France appeared imminent.

In the undeclared war with France, the Navy was ultimately increased to 50 vessels of various sizes.³² To man these vessels approximately 5600 officers and men were needed.³³ Since there was no personnel management and no personnel planning, there was no supply of officers. Both for this reason and because of local politics, the officers for the 50 vessels were usually chosen from the locality in which the ships were built. The captains' positions were subject to politics and "the requests and recommendations of influential friends and relatives had much weight."³⁴ The captains, in turn, chose their lieutenants. There were no admirals during the Revolution and the War of 1812 because the Congress considered the admiralty an imperial rank. The Congress consistently refused to create the rank until the Civil War, when it was conferred upon Farragut for his exploits and heroic deeds.

Efforts were made to reduce the Navy at the beginning of Jefferson's administration. However, the war with Tripoli from 1801 to 1806 forced a reversal of the downward trend, and the imminence of war with England in 1809 strengthened the arguments of those who strove for a larger Navy.

When the War of 1812 came, the Navy increased in size. At its peak, the officer corps of the Navy consisted of 30 captains, 17 master commandants, 146 lieutenants, and 436 midshipmen. Of this total, about 38 percent were from Virginia, Maryland, and the District of Columbia. The Secretary of the Navy, the President, and other officials "were disposed to favor their own states."³⁵

INDUSTRY

It is interesting to compare the growth of industry's equivalent of the officer, the manager, during the same period of our nation's growth. Different factors were at work. Some tended to act as constraints on the growth of industry per se and by implication on the growth of managers as a class distinct from the owner-manager. There was no large industry in the sense that we know it today, and the owner found it easy to take care of all aspects of his business without outside help, or perhaps with the help of his sons.

Three major factors tended to limit the development of a managerial class during the Colonial period. First, the household was the essential factory unit and was legalized in at least one state: a Massachusetts law of 1656 required each family to make at least three pounds of woolen goods yearly.³⁶ Similarly, farming on a large scale was the chief pursuit of most families. When crops were not growing, many of these farm families were engaged in other lines of economic activity. A large quantity of manufacture might be turned out by the farmer's household: during the winter months when farm work required less time, lumbering, fishing, and hunting were often sidelines of production. In many cases the family might run a country store or the farmer himself might engage in a professional pursuit. Also, unlike what is usual today, a relatively large proportion of what was produced on the farm was consumed there or at least in the vicinity; even the southern plantations, which were the outstanding exceptions, produced a substantial proportion of what they required. "This situation...must be borne in mind as an outstanding characteristic of the economic life of the colonies."³⁷

Much of this ability to produce and to be self-sufficient depended on the help of indentured servants and slaves. The necessary master-worker relationship was uncomplicated and the need for a class of managers was nil. Some legal action was taken by a few of the colonial governments to protect the rights of indentured servants³⁸ but this labor legislation cannot be viewed as creating special personnel administration problems. Personnel management in the family business for any level of employees was nonexistent as a science or even as a concept.

Second, various regulations reduced the need for managers. These growth-inhibiting regulations can best be understood in terms of the mercantile system which took from the colonies raw materials needed by England but opposed development of manufacturing which would compete with English industry.³⁹ For example, England imposed restrictions in 1718 on the free emigration of skilled artisans. In 1750, she forbade emigration to those in certain textile industries. She

also forbade the export of certain machines or tools used in these industries, starting with the stocking frame in 1696, then implements used in the wool and silk industries in 1750, and finally instruments employed in the cotton and linen industries in 1774.⁴⁰

The one industry which did grow was shipbuilding and the manufacture of products associated with it. This, of course, was an outgrowth of England's wars on the Continent and the relatively cheap costs of the ships in America.⁴¹ It must be noted, however, that these early businesses often "died with the passing of the owner or absence of talent among the surviving males."⁴²

Third, the Embargo Act of 1807, the Nonintercourse Act of 1809, and the Louisiana Purchase in 1804, all of which grew out of the Napoleonic Wars, seemed simultaneously to have ruined American industry, to have forced it to begin to fend for itself, and to have provided it with vast new markets.

Markets grew until about 1808 because of the needs of the armies in Europe. The stimulus and demands in Europe increased the colonies' foreign trade, shipping, and agriculture, thus accentuating the same main lines of economic activity that were already dominant. However, starting with the temporary Embargo Act, but not becoming marked until after the country entered the War of 1812, the reactions were exactly reversed. Before the end of the War of 1812 foreign commerce, the carrying trade, and the foreign markets for farm products had practically vanished. In turn, the absence of imports gave a great impetus to domestic manufacturers. Thus, increasingly cut off from economic intercourse with the rest of the world (which had been abnormally stimulated during the 15 years preceding 1808), the United States was compelled to secure a greater degree of economic self-sufficiency and independence and a more completely rounded national economy than had prevailed theretofore. The hastening of this transition was a particularly important reaction to the Napoleonic Wars and the War of 1812.⁴³

Also important was the very high general level of prosperity that prevailed from about 1794 to 1812, despite brief recessions in 1802

and 1808. The abnormal foreign demand for American goods, shipping, and trading services created a strong sellers' market and brought a large inflow of wealth to the country despite the higher prices paid for imports. It was a period of rapid accumulation of wealth for many and the resulting savings helped to provide the capital needed for the expansion of domestic manufactures.⁴⁴

In short, the formation of capital necessary for the foundations of big business as we know it was being established. Most businesses were still small and there was no business large enough to need a class of managers independent of its owners. Nevertheless, an immediate consequence of the growth of even small businesses was a sharp distinction between employer and employee. There were two natural results. The employer, seeing the end to the almost paternalistic relationship between master and journeyman, began to fight to preserve his rights. The journeyman, in turn, sought protection by associating with his fellow workers to secure higher wages and to maintain his status by insisting on a term of apprenticeship before one could become a qualified journeyman.⁴⁵

AN OVERVIEW

A young man at the end of the War of 1812 looking to the future of his nation and contemplating a career would hardly find an incentive to become an officer in the Army or in the Navy. Some of the causes of the Revolution created in the Congress and in the nation a distrust of standing armies. In addition, few members of the new Congress could see a need for a Navy. It was deemed expensive and imperial; in addition, it was widely held that an invasion force could easily be repelled. The prevailing opinion was summarized by Patrick Henry during the ratification debates:

Had we a standing Army when the British invaded our peaceful shores? Was it a standing Army which gained the battles of Lexington and Bunker Hill, and took the ill-fated Burgoyne? Is not a well regulated militia sufficient for every purpose of national defense? And which of you, my fellow citizens, is afraid of any invasion from foreign powers that our brave militia would not be able immediately to repel?⁴⁶

The same young man would have seen that there was no connection between the way in which the military managed its officer corps and the way in which the civil sector managed its personnel. Any interface between these two sectors was in the distant future of the nation. If there ever was to be a similarity, it would come later. A young man had a pretty clear indication that there were more opportunities for fame and fortune in the civil sector than there were, at this time, in the military.

There were, of course, some indicators that the military would grow in size and thus increase the opportunity for the regular officer. First, there were the constant depredations by the Indians on the borders. They simply would not go away and given that they stood to lose their way of life and their hunting grounds, some of which they considered sacred, there was every assurance that they would not give up the struggle to prevent encroachments of colonists onto their lands. Second, the new nation was growing rapidly. In due course, it would inevitably bump heads with its neighbor to the south, Mexico, and with its neighbor to the north, Canada. Furthermore, it would finally inevitably encounter even so distant a land as Czarist Russia, who had small colonies on the west coast and a stake in other parts of the North American continent.

A simple analysis at the time would indicate that there would be constant warfare on the North American continent. The rulers of nations were much more willing to resort to arms in those days than they are now. Warfare was less costly in lives and goods, and wars were largely economic in nature in that they were waged in part for the purpose of adding to their wealth by acquiring new colonies.

If there were to be ongoing warfare, and it is easy to believe this in hindsight, then the perceptive young man might have realized that there would always be a necessity for officers in the armies raised to fight those wars. He also would have seen, on the other hand, that the whole thrust of legislation up to that date had placed greatest reliance upon the militia concept. The Militia Act of 1792 placed the burden for fighting future wars on the citizen army, which

it hoped to raise as needed. This would have a most satisfying result from two standpoints: it would create the armies needed rapidly and the maintenance of large regular forces would not be required, thus economizing on the scarce dollar resources of the new nation. Since these citizen armies were to be militia under the control of states for the appointment and promotion of officers, the young man might logically opt for a career in the militia, where he could advance rapidly and effortlessly if he had the necessary political connections.

One characteristic of the militia made a regular career somewhat less attractive. As a regular, one could not always count upon the militia to be provided as needed. For instance, governors of states challenged the President's right in 1812 to call out the militia. They asserted that they and not he had the right to decide whether the circumstances justified the call. Later, militia on the Niagara frontier refused on constitutional grounds to enter Canada to support regular American troops fighting there. In the Spanish-American War, militia units likewise refused to serve outside the United States. State officials also upset the lines of command by appointing militia officers to higher rank than the regular officers to whom the militia units were theoretically subordinate.⁴⁷

If he were even more perceptive, the young man might have realized that the system made it virtually impossible to create a militia officer corps, or for that matter a regular officer corps, that produced trained officers. The lack of training and the absence of anything resembling training literature or standards meant that turning over the problems of officer training to the states ensured, at best, 13 different standards, no one of which was likely to be satisfactory. West Point was still designed at this time to turn out engineers rather than truly well-rounded military officers. Moreover, the classes were small and the Academy in its first years did not graduate more than a handful of officers.

Nevertheless, the Academy did exist. The standing Army seemed to grow larger after each military crisis, even though it was always

demobilized. There was, therefore, some hope for the highly uncertain future, where a patient man might yet make a name for himself.

A Navy career was even less appealing. The Congress had completely eliminated the Navy after the Revolution and had built it up during the War of 1812 almost literally from the merchant fleet. Politics were more rampant than ever and the best qualification a young officer aspirant could possess was to be a relative of the captain of a vessel in commission or the relative of one of the members of the new Congress. Nevertheless, the magnificent victories of the Constitution had raised the Navy's prestige among the population, and the growing importance of trade to the new nation made some realize that a Navy was necessary to protect that trade. Others, like Hamilton, could see a small American Navy holding the balance of power between France and England, thus assuring a voice for the new nation in the councils of the great powers. It was a heady thought and augured well for the future of the small but victorious Navy. (Overlooked was the fact that in terms of ship actions we had lost as much as we had won in the War of 1812.)

So what was a young man to do? The answer was difficult but it was probable that there would always be an Army and a Navy. What was uncertain was how large they would be. More uncertain was the manner in which the services would ensure that their prospective needs for quantity and quality would be met. In short, the requirements for officers were unclear and quality officer personnel was a dream for the future. Though there was a requirement for good officers at all times in our military history, there was no mechanism to ensure that that need would be filled.

At each point where the Congress might have opted for a regular establishment that was large enough to fight battles with the Indians or with English invaders, it had, instead, opted for the militia concept as less expensive. In economic terms, the Congress was weighting the incentives for young men away from a career in the regular Army or the Navy.

NOTES

1. "I am a man under authority, having soldiers under me: and I say to this man, go, and he goeth; and to another, come, and he cometh," Matthew 8:9, is early evidence to support this statement. So also is "And Moses chose able men out of all Israel, and made them heads over the people, captains of thousands, captains of hundreds, captains of fifties, and captains of tens." Exodus 18.

2. Weigley, op. cit., p. 29.

3. From a plaque in the Infantry Museum at Fort Benning, Georgia. See also Weigley, op. cit., p. 29, who points out that "any of four days in June 1775, or perhaps the fourth of July of the same year, might be considered the birthday of the Army." However, "June 14th is the day that the Congress first authorized the muster of troops under its own sponsorship."

4. Paullins, op. cit., p. 7.

5. The first four vessels were the Alfred, the Columbus, the Cabot, and the Andrea Doria. The two sloops added later were the Providence and the Hornet, and the two schooners were the Wasp and the Fly. Paullins, op. cit., p. 6. See also George R. Clark et al., A Short History of the United States Navy, J. B. Lippincott, Philadelphia, 1939, p. 3.

6. The grade of admiral was not approved by the Congress until 1862.

7. Paullins, op. cit., p. 7.

8. Ibid.

9. Louis C. Hatch, The Administration of the American Revolutionary Army, Longmans, Green & Co., New York, 1904, p. 42.

10. Ibid., pp. 35-46, amplifies this point.

11. Ibid., p. 45.

12. Weigley, op. cit., p. 1.

13. Ibid., p. 2.

14. The Navy has not had any major problems with "volunteers." See Peter Karsten, The Naval Aristocracy, The Free Press, New York, 1972, p. 13.

15. Debates and Proceedings in the Congress of the United States, 18th Congress, 3rd session, Washington, D.C., 1854, p. 1226. Commonly called The Annals of Congress.

16. Fairfax Downey, Indian Wars of the U.S. Army, Monarch Books, Connecticut, 1964, pp. 53-66, gives an interesting account.

17. Kreidberg, op. cit., p. 29.

18. Ibid.

19. Ganoë, op. cit., p. 101, calls this battle "Fallen Timber." All other authorities I have read call it "Fallen Timbers."

20. Annals of Congress, 16th Congress, 2nd session, 1821, p. 818.

21. Kreidberg, op. cit., p. 30.

22. Ibid., p. 31.

23. Ibid.

24. Huntington, op. cit., pp. 165, 166.

25. Ibid., p. 154. In fairness, when Wilson was asked to give commissions to two "amateurs" who were also "presidential candidates," General Leonard Wood and Theodore Roosevelt, he lost his enthusiasm for amateurs. Daniel Beaver, Newton D. Baker and the American War Effort, 1917-1919, University of Nebraska Press, Lincoln, 1966, pp. 9, 10, 23, 28-30, 37, 41-43, 87-91, 97, 98, 100-103, 152, 153.

26. The first recorded idea for a national military academy is in a Congressional resolution of 20 September 1776 which appointed a committee to "inquire into the state of the Army and its wants." That committee's report on 3 October 1776 contained a document that recommended an officer's academy "on the same plan as Woolwich." Almost simultaneously a Congressional resolution of 1 October directed that a plan be made for "a Military Academy at the Army," See United Services Magazine, Vol. IV, January 1881, p. 597. See also Hatch, op. cit., p. 43.

27. Huntington, op. cit., p. 198.

28. Lieutenant F. M. Brown, USAF, "A Half Century of Frustration, A Study of the Failure of Naval Academy Legislation Between 1800 and 1845," U.S. Naval Institute Proceedings, June 1954, pp. 631-635.

29. Cornwallis surrendered on 19 October 1781.

30. Paullin, op. cit., p. 47, lists the commissioned vessels as the Trumbull (28), Alliance (36), and Deane (32). Under construction were the America (74) and the Bourbon. The figures in parentheses are the number of guns carried by the ship.

31. Ibid.

32. Ibid., p. 109, gives the number of guns carried by the ships.

33. Ibid., p. 111.

34. Ibid., p. 110.

35. Ibid., p. 151.

36. C. R. Milton, The Development of Philosophies of Personnel Administration, University of North Carolina Press, Chapel Hill, 1960, p. 23.

37. Wright, op. cit., p. 88.

38. Milton, op. cit., p. 24.

39. Wright, op. cit., p. 89. See also John M. Peterson and Ralph Gray, Economic Development of the United States, Richard D. Irwin, Inc., Homewood, Ill., 1969, pp. 80-83, for a brief description of the principles of the mercantile system.

40. Ibid., p. 89.

41. Ibid., p. 90.

42. Glenn Porter, The Rise of Big Business: 1860-1910, Thomas Y. Crowell, New York, 1973, p. 12.

43. Wright, op. cit., p. 208.

44. Ibid.

45. Milton, op. cit., p. 32.

46. Patrick Henry speaking before the Virginia Ratifying Session, as quoted in Weigley, op. cit., p. 85.

47. Huntington, op. cit., pp. 170, 171.

III. THE PRE-CIVIL WAR PERIOD

INTRODUCTION

The period between the War of 1812 and the Civil War was important in that it showed the new nation and the Congress that military forces would be needed as far forward in the future as could be discerned. Moreover, it demonstrated to the nation the need for quality officer personnel if the defeats of Harmar and the fiasco at Bladensburg were to be avoided in the future. As the nation pushed into the newly acquired Louisiana Territory and rushed to place its boundary on the Pacific Ocean, it found itself in renewed conflict with powerful Indian tribes and nations.

Other factors were at work also. Railroads began their westward expansion. The total effect of railroad and population growth created an expanding market, a need to produce goods more cheaply and efficiently than the family unit could, and an inexpensive way to distribute those goods to the expanding western population. All of this required military forces for protection; and, in addition, the inevitable abrasive meeting of borders on our south and north created frictions and conflicts that only war could ultimately resolve. Finally, though it is not the purpose of this report to discuss political policy, it should be noted that the existence of a navy played an important part in the early development of our Asian policy. Everyone knows of the exploits of Commodore Perry in opening Japan, but his was only the first of numerous other naval activities in the Pacific which had a hand in determining our policies during the 19th century. The Pacific Ocean boundary fulfilled a long dream of finding the fabled route to India, and the nation pushed vigorously to reap the benefits of its dream.¹

The armed services during the period were helped by important personnel management innovations. The number of cadets at West Point was increased to 250 in recognition of the value of trained regular officers. The Naval Academy became operational in 1845, and the Navy

spread into two oceans. The Mexican War saw the Army organized into divisions, thus creating a new and important level of command with its attendant need for commanders and staffs. The Navy returned to public favor by its exploits in the War of 1812 and received its first steamships. This was the start down the road of technology, with its needs for specialists. The increasing technological changes during this period in the Navy produced the line versus staff issue; and the creation of the general staff in the Army was the source of the staff versus line controversy there (in some of its ramifications it is still an active issue). Finally, the question of speedier promotion, and its corollary, forced retirement of those incapable of performing combat duties, became important.

THE MILITARY

Legislation by the Congress during and after the War of 1812 served unintentionally to assure a continuing supply of trained officers for the regular Army. There is no evidence to support a conjecture that the Congress by its actions was interested in a comprehensive approach to personnel management. However, legislation was passed which acted as personnel management policies. The reasons for the legislation appeared to be two. On one hand, the militia officers had performed badly, particularly at the Battle of Bladensburg where panic among the militia allowed the British to capture and burn the capitol.² On the other hand, the regulars had achieved spectacular victories at Chippewa Creek and Lundy's Lane. To this day, the battle of Chippewa Creek is memorialized by a painting displayed in most Army mess halls, museums, and in the corridors of the Army's portion of the Pentagon. The painting proudly depicts the British commander's dismay when the American troops which he had contemptuously thought to be militia advance through a rain of fire in an unexpected display of elan and steadfastness. In his realization that the fight will not be easy he is alleged to have cried out, in agony and despair, "Those are regulars, by God!"³

A key piece of legislation authorized an increase in the number of cadets at West Point to 250. In addition, cadets were placed under the established discipline of Academy regulations, were to be organized by the superintendent into companies, were to be encamped three months out of the year, and were to be "trained and taught all the duties of a private, noncommissioned officer and officer."⁴ This boost for the Academy was not to bear fruit in the War of 1812, but it was to be a boon for the next war and for the interval in between.

There was a curious legal oversight by the Congress. It had established West Point and increased the size of its classes so that more and more graduates became available to enter the Army each year. However, no provision had been made to ensure that the graduated cadets were commissioned as second lieutenants into the Army. For instance, in 1836 there were no actual vacancies in the officer corps, so the cadets who graduated that year were given brevet ranks and attached to their respective companies. This meant that the graduates literally had to wait until someone died to create a vacancy since there was no system of retirement and no prescribed manner for dealing with incompetents who were on active duty. In the absence of Congressional interest in this matter, the "power of the President to make appointments or promotion to the line or staff of the Army [was] plenary, being conferred by Article II, Section 11, Paragraph 2 of the Constitution of the United States." Finally, the Congress did interest itself in the matter and in the act of 18 June 1878 required that "all vacancies occurring in the grade of second lieutenant should be filled from the graduates of the Military Academy so long as any such remained in the service unassigned."⁵

Another action ensured that qualified officers would be retained. The Army following the War of 1812 was demobilized but not decreased to former levels. De facto measures again showed a trend to utilize if not to manage available officer personnel. In the demobilization which followed, "commissioned officers wishing to be retained must have served in the war, with preference given to Military Academy

graduates."⁶ Vacancies in the officer corps were filled from the list of disbanded officers until May 1816. To handle the vexing problems of advancement for these officers, the Congress interested itself in promotion policies for the first time in an act of 26 June 1812.⁷

Other steps included a law of 3 March 1813 which gave the Secretary of War, John Armstrong, the assistance of a General Staff. This is the first time this term appeared in American legislation. Although this General Staff was not one in today's sense, the improvement was crucial and the Secretary could henceforth call upon an adjutant⁸ and others to assist him. The staff so constituted retained its form for almost a century, until it was superseded by the true General Staff of Elihu Root.

The General Staff was not an overall planning and coordinating agency in today's sense. Rather, it was a group of autonomous bureau chiefs each of whom was responsible directly to the Secretary of War for the management of a specific function or service. As a result, the basic structure of the War Department was divided into two separate elements--the General Staff and the Army in the field,⁹ or the staff and the line.

From a personnel management standpoint, the result was a disaster. First, each bureau was autonomous. Therefore, promotions and other personnel matters were handled by each bureau chief. Second, the Army in the field became the line whose titular head was the Commanding General, a position without Congressional authorization and confused duties and functions. The total effect was to create two sets of personnel policies, or the staff-line issue which in some aspects exists today.

In 1820 the Secretary of War, John C. Calhoun, sent an important message to the Congress which strongly advocated a standing Army, properly officered, as opposed to previous reliance upon militia.

I am aware that the militia is considered, and in many respects justly, as the great national force; but, to render

them effective every experienced officer must acknowledge that they require the aid of regular troops. Supported by a suitable corps of trained artillerists, and by a small but well-disciplined body of infantry, they may be safely relied on to garrison our forts, and to act in the field as light troops.... To rely on them beyond this, to suppose our militia capable of meeting in the open field the regular troops of Europe, would be to resist the most obvious truth, and the whole of our experience as a nation. War is an art, to attain perfection in which, much time and experience, particularly for the officers, are necessary....

The great and leading objects, then, of a military establishment in peace, ought to be to create and perpetuate military skill and experience...and the organization of the Army ought to be such as to enable the government, at the commencement of hostilities, to obtain a regular force, adequate to the emergencies of the country, properly organized and prepared for actual service....

With a complete organization and the experienced officers, trained in peace to an exact and punctual discharge of their duty, the saving in war (not to insist on an increased energy and success in our military movements) would be of incalculable advantage to the country.¹⁰

Similarly, Calhoun would retain in the reduced Army the two major generals and four brigadiers...for the same reasons that demanded a full staff and to offer sufficient high ranks to keep talented and ambitious men in the officer corps. Throughout the line of the army he would retain a disproportionately high number of officers, for the qualifications of the officers are essentially superior to those of the soldiers, and are more difficult to be acquired.¹¹

Here we see the first formulation of two important concepts which are key elements of today's officer management policies: the sliding-scale principle¹² and the expansible regular Army. Both were to shape the need for officers and their management as a personnel resource.

Calhoun's principle was largely neglected, however. Between the War of 1812 and the Mexican War, the Army fought the first Seminole

War (1817), the Black Hawk War (1832), the Florida War (1835-1842), and almost went to war with England on the Niagara frontier (1838). Contrary to Calhoun's recommendations, the need for officers (and for troops) was met by calling up the militia. Clearly, the Congress was willing to solve the the quantity problem by relying upon the militia system. It seemed unconcerned that the concept meant that the states controlled officer selection and promotion. There were thus as many different standards as to what constituted a good officer as there were separate states.

A new problem which only the Congress could solve became apparent during the Seminole Wars. It is succinctly stated in an anonymous letter from an Army lieutenant¹³ in which he complains that

Fort Brooke, Florida, in the heart of the enemy's country, is garrisoned by more than 250 men, [and] has been, for six weeks, commanded by a first lieutenant. This officer has held a commission in the service 18 years, having graduated from West Point in 1818.... Every farthing to which he is entitled by existing laws and regulations (exclusive of a servant to take charge of his tent, and which is therefore taken in kind) is \$54 per month or \$648 a year!!

...By the new Army regulations, lieutenants of the Navy of less than 10 years standing rank with first lieutenants of the Army; those over ten years, with captains. Lieutenants commanding with Navy receive \$1800 a year, and one ration, which at 20 cents a day is \$73 a year, and as many servants as necessary. The officer commanding the ship ...is junior to the commandant of the post, but still receives at least three times as much pay....

I do not say the pay of the Navy is too great...but I do say the pay of the Army, at least the lower grade, is quite too small....

Briefly, equal responsibility should mean equal pay. Since rank and seniority can be equated to responsibility, the lieutenant thought that the more seniority one had the larger should be one's pay. In effect, he was asking that a system of longevity pay should be instituted.

Longevity pay or its equivalent had not been a problem to this point because pay had normally been associated with promotion, and the focus of attention was upon the speed of promotion. Therefore, the notion that pay could be traded off against slowness of promotion had not yet occurred to the military. However, the slowness of promotion during this period was so stultifying and so depressing to morale that resignations were submitted citing as the sole reason for leaving the service the lack of opportunity for advancement.

The situation became serious enough that the Secretary of War noted in his report for the year 1836: "My attention having been called, by repeated resignations and other circumstances, to the pay of subordinate grades, I have looked into the subject with some care...." The result of the Secretary's investigation was a suggestion for what is now known as longevity pay. "...to remedy the inadequacy of the present system when promotion is slow...it has occurred to me that it would be expedient and just to introduce the additional feature of increasing the pay after five years service in any one grade...."

The Congress failed to act upon this suggestion immediately. However, the authorization act of 5 July 1838 states: "...every commissioned officer, of the line or staff, exclusive of general officers, shall be entitled to receive one additional ration per diem for every five years he may have served, or shall serve in the army of the United States."¹⁴ Since the ration was established at \$0.20 by previous legislation this meant that each officer with more than five years in grade received an additional \$0.20 per day per each five years in that grade. This principle was the first instance in which longevity pay was instituted as a device to compensate for slow promotion rates. It was also the first step to indicate that seniority would mean more pay and that there was indeed a difference between officers wearing the same insignia of rank but separated by twenty years in the service. The issue, quite naturally, recurs throughout the remainder of our history, as does its corollary, the concept of equal pay for equal responsibility.

There is a rather interesting indication that Congress experimented with a straight salary system for some members of the armed forces during the period. In 1802, the highest ranking officer in the Army was a brigadier general. The Congress authorized his pay as \$225 per month and stipulated that this was his "full and entire compensation, without right to demand or receive any rations, forage, travelling expenses, or other perquisites or emolument whatsoever...." Several years later, in 1808, the authorization act returned to the original basis of payment and a brigadier's pay was \$104 per month, 12 rations, and forage for his horse. In addition, he was paid reasonable travel expenses when on government duty. The record is somewhat obscure but one may infer that the general officers of the day preferred the latter system to a straight salary.

The Mexican War began on 24 April 1846 and demonstrated the value of some of the measures previously adopted for providing the small regular Army with a continuous supply of professionally trained officers. The improvement was most noticeable in the junior officer ranks where most of the approximately 500 West Point graduates on duty were to be found in the grades of lieutenant and captain.

The senior officers were not on a comparable physical level with their juniors. There was no management of personnel at that level to ensure orderly and necessary retirement. As a consequence, officers literally served until they died in the saddle. The starkest effect of this lack of policy is revealed by Lieutenant Ulysses S. Grant, who wrote that the colonel of his regiment " 'a most estimable...old gentleman,' decided that with war imminent he should conduct battalion drill, which he had not done in years; after two or three evolutions he fell dead."¹⁵

An organizational innovation created a new demand for highly trained officers: the troops in the Mexican War were the first to be organized systematically into divisions, even though the practice had existed in Europe since the time of Napoleon.¹⁶ This meant that it was almost as difficult to find officers capable of handling a division as to find Army commanders.¹⁷

The foresight of Hamilton in proposing and Jefferson (despite their conflicting philosophies) in approving the Military Academy and the assured supply of a yearly cadre of trained officers was appropriately demonstrated. For the first time "the skill of the junior officers was commensurate with the bravery of the soldiers. Though the [West Point] curriculum was better calculated to produce good engineers than skillful battlefield leaders...the tactical training of West Point proved sufficient...to turn out such leaders."¹⁸ The further value of trained junior officers is shown by a famous quotation of the Chief of Staff of the United States Army at the end of the Mexican War.

...but for our graduated cadets, the war between the United States and Mexico might, and probably would have lasted some four or five years, within its first half, more defeats than victories falling to our share; whereas, in less than two campaigns we conquered a great country and a peace, without the loss of a single battle or skirmish.¹⁹

The Army was immediately demobilized after the Mexican War. Such of it as remained fought Indians in the incessant wars which raged on the western frontiers. Stagnation in personnel policies was prevalent. One of the veterans of the Mexican War who stayed on in the service was Lieutenant Thomas W. Sweeney. "Fighting Tom" fought Indians with one arm, his left. He had lost his right when the infection of the second of two wounds suffered at the Battle of Churubusco forced its amputation. Nor was he altogether atypical.²⁰

A step toward achieving similar personnel policies in the "two armies" was taken in legislation approved 7 April 1858 which provided that "all [militia] officers shall be appointed in the manner prescribed by law in the several states or territories...except for quartermasters and commissaries, who were to be 'detailed from the respective departments of the regular Army.'"²¹ This was an infringement on the authority of the states to appoint their own officers for militia formations and ultimately led to further legislation designed to ensure uniformity. The total process, however, proved to be slow.

THE NAVY

For the Navy, the period between the War of 1812 and the Civil War was one of national recognition, primarily because, quite simply, the Navy literally fought its way to distinction. The striking success of the engagement between the Constitution and the Guerriere, the Constitution and the Java, and the United States and the Macedonian made the last half of 1812 a brilliant time in our naval history.²² The impact on morale of these and other victories against the Algerine pirates in 1815 and 1816 led to the passage on 29 April 1816 of an "act for the gradual increase of the Navy of the United States" which authorized construction of nine 74-gun ships of the line and 12 44-gun frigates. By the passage of this act the Navy had won its recognition and the Congress had "definitely committed the United States...to the policy of building up a fleet in time of peace, and of establishing a Navy comparable to those of the European nations."²³

Though the Congress had committed itself to build a fleet, it had not provided a proper set of laws to ensure that the fleet was commanded by the necessary numbers of qualified officers who would progress through their naval careers in an orderly manner. The frequency, number, and dates of promotion were the prerogative of the President. He could either fill or ignore any vacancy. Moreover, he could for his own reasons add personnel in any grade. This arrangement resulted in only one captain appointment between 1818 and 1824 but nine appointments in 1825. In 1836 five lieutenants were appointed; and in 1837, 49. In February 1829, President Adams appointed more than 50 midshipmen and "gave grounds for Jackson's belief that he filled up this grade in order to cheat the Democrats of their spoils."²⁴ No admirals were appointed because Congress felt that the rank "savored of royalty and its use...was contrary to democratic principles."²⁵ Clearly, no thought was given to the proper ratios between higher and lower grades demanded by the existing force structure. Nor was a flow of younger officers provided to ensure replacements in the officer corps.

The two steam frigates Mississippi and Missouri, completed in 1842, marked the beginning of the steam Navy²⁶ and the need for engineers to keep the steamships running. There was, not unexpectedly, no legal authorization to obtain these specialists, nor did the specialists exist within the ranks of the Navy itself. Therefore, in February 1842, the Secretary of the Navy informed the Congress that he had no authority to enlist engineers and that "their pay is unascertained and dependent on private contract, and their rank in the service, [and] position in the ships are equally undetermined."²⁷ To correct these deficiencies, the Corps of Engineers was created on 31 August 1842. On 1 September 1842, Gilbert L. Thompson, son of an ex-Secretary of the Navy, was appointed engineer-in-chief of the Navy. "Unfortunately, his engineering skills were nominal, and confined to a very prompt and efficient drawing of his salary."²⁸ The absence of policies concerning the proper use of specialists and the ramifications thereof are still an important personnel management concern.

A major flaw in the personnel management system was revealed during the Indian and Mexican Wars. Simply stated, there was no military regulation to rid the services of officers too old to be physically fit for combat duties. Inevitably, at some point these officers, however capable they had been in their youth, became too old for the rigors of combat. During the bitter fighting of the Seminole and Creek Wars field officers were conspicuously absent.²⁹ The personnel returns of 30 November 1837 showed that "there were seventy-seven companies of infantry, artillery, and cavalry serving in Florida, entitled to a complement of twenty-four field-officers of whom but fourteen were present. In the four regiments of infantry there was but one colonel for duty; the four regiments of artillery had none."³⁰ The officers were not present because at the beginning of the Florida war "nearly all the field-officers of the line were old and decrepit."³¹

To remedy the problem of field officers incapable of performing combat duty, the general-in-chief recommended a retirement plan in his

annual report for 1837. The Congress took no action on the proposal, presumably because of the costs involved.³² Moreover, the rate of promotion was scarcely affected by the casualties of the five years of war in Florida because the "old and decrepit" officers were unable to participate so "promotion on account of exposure in campaign or death on the battlefield fell within the grades of major and below."³³ As a consequence of these two factors, the situation remained unchanged and at the beginning of the Mexican War few of the senior officers "were able to accompany their regiments."³⁴

The case was somewhat different in the Navy, in which there were only three ranks: lieutenant, master commandant, and captain. This meant that with only two promotions in a lifetime, the problems of aging were compounded by the lack of incentive. Thus officers hung on "to their posts until they died in their boots."³⁵ The Congress finally acted in 1855 when it became convinced of the necessity to retire naval officers physically incapable of combat duty. After years of discussion and the introduction of numerous bills, "An Act to Promote the Efficiency of the Navy" was passed on 28 February 1855. This act provided for a board of 15 naval officers to make a careful examination into the efficiency of the officers of the line, and to report to the Secretary of the Navy those officers who were "incapable of performing promptly and efficiently all their duties both ashore and afloat." Those officers who were incompetent were to be discharged; officers judged incapable were to be retired.³⁶ The Army had to wait until the Civil War to have a compulsory retirement system, and industry had to wait until the establishment of the Social Security system for a government-sponsored plan which might provide a basic age when a worker might begin to have some sort of income for a forced retirement.³⁷

The Mexican War was largely a land battle so the Navy, as we shall see later, did not enjoy the marked increases in size normally associated with mobilization. Its major operation was the landing at Veracruz, where "naval guns shelled the beach and the sand hills beyond, and sailors landed the troops with surf-boats." Even though

no opposition was encountered it was a remarkable operation for its day and clearly foreshadowed the gigantic landings of World War II.³⁸

INDUSTRY

Most of the factories during the period were small and did not exceed one building. There was, therefore, little need for a professional class of managers. The exception was the expansion of the railroads, which resulted in multithousands of employees in one firm with equipment spread over hundreds of miles. This set of conditions was new and did generate a need for a managerial class.

On the whole, however, the westward movement of population tended to prolong the period when household manufacturing, generally a by-product of farm life, was fairly widespread, at least until the coming of the railroads and the declining price of factory-made products. Textiles are a case in point. Although their manufacture was one of the first to adopt factory methods, the household output of cloth appears not to have begun to decline until 1835. From then on, the cheaper and better factory products rapidly displaced those of the household. One after another, the various household manufacturers experienced a similar fate, although some lingered on, but with steadily declining output, until after 1860.

The first real factory in the United States produced cotton cloth and began in 1814 at Waltham, Massachusetts. The success of this factory soon led to the opening of others at the same place. Later, when more water power was needed, Boston capitalists turned to the Merrimack River and in 1822 erected a factory at Lowell, where by 1834 there were 19 cotton mills.

The spinning and weaving plants generated a need for the bleaching, dyeing, printing, and finishing of cloth. There were two methods: in New England an integrated plant was common, whereas outside of New England these processes usually took place in separately owned concerns. For instance, in the middle states, particularly around Philadelphia, there were many hand-loom weavers,

and spinning and weaving were generally carried on in separate, smaller establishments usually owned by individuals or partnerships.

Two forms of ownership were found. In the case of the larger cotton factories of New England, many of which involved an investment of \$1 million or more, the corporate form of ownership was common. In fact, it was here that corporations were first frequently used by manufacturing enterprises.³⁹ Nevertheless, for most firms the emphasis was upon management by the individual owner and his family.

The need for corporate management as we visualize it today--and therefore a need for middle managers as a class--appeared first in railroads; it appeared suddenly,⁴⁰ spawned in a sense by the discovery of gold in California. By 1855, at least 13 companies were working more than 200 miles of road, while the four trunklines were managing lines whose volume of activity was at least twice that of the largest railroad in the country in 1849. Whereas only two American railroads were capitalized at over \$10 million in 1850, at least ten had a greater capitalization by the middle of the decade, and five had issued over \$19 million worth of stock and bonds. The same pattern of growth held for the number of employees and for the volume of freight and passengers carried. "A very brief period, specifically from 1849 to 1855, can then be identified as the time when modern business administration first appeared in the United States."⁴¹

However, aside from railroads, most factories were so small they could be managed by the members of one family. As a consequence, there was little perceived need for a managerial class to perpetuate the life of a company. Obviously, there was also no body of theory concerning management development. The absence of personnel management for both employees and lower level managers is shown quite starkly by the words of a plant owner when asked if he concerned himself with the welfare of his employees.

As for myself, I regard my work people just as I regard my machinery. So long as they can do my work for what I choose to pay them, I keep getting out of them all I can. What they do or how they are outside my wall I don't know, nor do I consider it my business to know. They must look

out for themselves as I do for myself. When my machines get old and useless, I replace them and get new ones, and these people are part of my machinery.⁴²

AN OVERVIEW

A perceptive young man considering a military career would probably have viewed the previous statement as an incentive. Within the framework of the overall situation in the nation during the period being discussed, incentives for a military career seemed to be comparable or superior to those offered by industry.

The previous discussion also shows that there was no dearth of officers. In at least one year, there was an oversupply, as evidenced by the fact that graduating West Point cadets had to be given brevet rank instead of their commissions as second lieutenants. Quality was, of course, another matter, due largely to the absence of a system of retirement or a system for promotion at a steady pace. Young officers could not be promoted at a steady enough pace to ensure that they received adequate training at each level of command. Officers remained in the junior grades for as long as 20 years and were, as a consequence, poorly prepared for higher commands when expansion upon the declaration of war took place. Senior officers were frequently incapable of leading troops in combat. The slowness of promotion also contributed to the lack of quality of some of the higher ranking officers simply because there was stagnation during their younger years and they were unable to learn rapidly enough in the heat of combat.

A young man with business talents, on the other hand, would find it difficult to exercise them in industry unless he had the capital to form his own business. Simply stated, there was no class of professional managers and no discernible need for such a class except in the railroads. The perceptive young man might therefore conclude, in contrast with his father in the previous period, that it would be better to be a military officer.

NOTES

1. See the correspondence of Commodore Matthew Calbraith Perry with the Secretary of the Navy, "Correspondence Relative to the Naval Expedition to Japan," U.S. Senate Documents, 33rd Congress, 2nd Session (1854-55), Vol. 6, Ex. Doc. No. 34. Perry's first intrusion into Yokohama Bay occurred on 3 July 1853. See also Karsten, op. cit., passim.

2. General Winder, the commander of U.S. forces, was a lawyer. His appointment had been made because "being a native of Maryland and a relative of the governor, Brigadier Winder would be useful in mitigating the opposition to the war." Ganoe, op. cit., fn., p. 140.

3. See also Weigley, op. cit., pp. 130, 131; and Ganoe, op. cit., p. 138, for more details on the battles.

4. Ganoe, op. cit., p. 119. Weigley, op. cit., pp. 144, 145, says that the achievements of the regulars in the War of 1812 assured the continued existence of West Point. Before then, the fate of the Military Academy was uncertain.

5. The quotations in this paragraph are from Military Laws of the United States, 4th ed., Government Printing Office, Washington, D.C., 1901. The present law reads, "Notwithstanding any other provision of law, when any cadet of the United States Military Academy has completed the prescribed course of instruction, he may upon graduation be promoted and appointed a second lieutenant in the regular Army, and whenever any such appointment would result in there being a number of active duty commissioned officers in the regular Army in excess of the authorized active list commissioned officer strength, such strength shall be temporarily increased as necessary to authorize such appointment." See Military Laws of the United States (Army), Annotated, 9th ed., Government Printing Office, Washington, D.C., 1949, p. 118a. Ganoe, op. cit., p. 179, states that the absence of promotional opportunities in 1836 caused 117 officers to resign. This is a nontrivial number when it is realized that the strength of the officer corps was about 857 (the best estimate).

6. Weigley, op. cit., p. 139.

7. Ibid., p. 123.

8. Ibid. See also, The Military Laws of the United States, 4th ed., Government Printing Office, Washington, D.C., 1901, p. 479, fn. 2.

9. James E. Hewes, Jr., From Root to McNamara: Army Organization and Administration, 1900-1963, Center of Military History, U.S. Army, Washington, D.C., 1975, pp. 2-6, gives a more complete description of the bureau organization. See also, Cosmas, op. cit., pp. 5-68.

10. Weigley, op. cit., pp. 140, 141 (*italics added*).

11. Ibid., p. 141. *Italics added*.

12. The USAF Personnel Plan, Department of the Air Force, p. B-30, gives the official reason for the sliding scale as: (1) the turbulence represented by the large losses of senior and more experienced officers would make it almost impossible to fully man combat ready units...(2) as the total active duty officer force decreases, it becomes imperative that quick expansion capability be preserved. This necessitates retaining a cadre of experienced officers who can effectively manage an expansion... (3) based upon current statutes, senior officers are protected by rules of tenure which preclude large reductions of their numbers in relatively short periods of time. Recently proposed legislation "retains the principle presently in law." See Defense Officer Personnel Management Act, Report of the Committee on Armed Services, House of Representatives, to accompany H.R. 13958, p. 15. See also Hearings on H.R. 12405, Defense Officer Personnel Management Act (DOPMA) before Subcommittee Number 4 of the Committee on Armed Services, House of Representatives, 93rd Congress, Second Session, July 2, 10, 15, and 18, 1974, p. 170, for a reaffirmation of the same principle in the testimony of General Benade representing the DoD.

13. Army and Navy Chronicle, Vol. 3, 3 September 1836, p. 202. The letter is signed MICANOPY.

14. Military Laws, 3rd ed., op. cit., p. 100.

15. Weigley, op. cit., p. 174. See also Kreidberger, op. cit., pp. 70-71, concerning the inability of senior officers; specifically, the footnote on p. 71 notes that of "thirty-six regular Army field grade officers, one-third were unfit for duty." Finally, see Major General Emory Upton, "Facts in Favor of Compulsory Retirement," The United Services, Vol. II, March 1880, pp. 273-275, who says the field officers at the beginning of the Florida War were "old and decrepit" and "the condition of the Army at the beginning of the Mexican War was the same...in eleven regiments of infantry and artillery...no colonels [were] present, and but one lieutenant-colonel."

16. The concept had been too new in 1812 to be adopted and between 1812 and 1846 the Army was too small to accommodate the divisional organization.

17. Weigley, op. cit., p. 182. Italics added.

18. Ibid., p. 185.

19. This is the famous fixed opinion of General Winfield Scott which all new cadets at the U.S. Military Academy are required to memorize. See Bugle Notes--the Handbook of the Corps, U.S. Military Academy, West Point, 1939, p. 46. Approximately 500 graduates were on active duty in 1845. See also Weigley, *ibid.*

20. Downey, op. cit., p. 148.

21. Major General Emory Upton, The Military Policy of the United States, Government Printing Office, Washington, D.C., 1904, p. 224.

22. Paullin, op. cit., p. 154, notes that these victorious battles have obscured the fact that we lost about as much as we won. During the war the United States captured 23 British vessels of from 10 to 38 guns each and lost 17 vessels of from 10 to 44 guns each. National pride has somehow submerged the losses and magnified the gains of what was essentially an even contest at sea. However, the Navy did achieve a moral victory, given the size and experience of the British fleet.

23. Ibid., p. 176. The ships of the line were to be 74-gun ships.

24. The numbers in this paragraph are from Paullin, p. 189.

25. Ibid., p. 190. The Army and Navy Chronicle, Vol. I, 17 December 1835, p. 404, commenting upon the report of the Secretary of the Navy for that year, noted, "Not a word is said about the creation of higher grades, the necessity for which to the future prosperity of the Navy is admitted by all with whom we have conversed; nor are the claims of the older lieutenants to promotion once mentioned. Perhaps the Secretary prefers that these matters should originate in Congress." The Congress remained silent.

26. Actually the Navy had had two other steam vessels but "the two Fultons were little more than floating batteries." See Paullin, p. 180.

27. Ibid., p. 197.

28. See Paullin, footnote on p. 197, for the details in the foregoing paragraph. He cites Congressional letters, Navy Department Archive, Vol. VIII, p. 354; U.S. Statutes at Large, Vol. 577; and Bennett, Steam Navy, pp. 40-41.

29. Major General Emory Upton, "Facts in Favor of Compulsory Retirement," The United Services, Vol. II, March 1880, p. 274.

30. Ibid.
31. Ibid., p. 273.
32. Ibid.
33. Ibid., pp. 274, 275.
34. Ibid., p. 278.
35. Huntington, op. cit., p. 207.
36. Paullin, op. cit., pp. 238-242, gives more details. See also Huntington, op. cit., p. 246, for a slightly differing viewpoint.
37. There was one individual pension plan--New York had one for its police force in 1857. See Thomas P. Bleakney, Retirement Systems for Public Employees, University of Pennsylvania, Philadelphia, 1972, p. 22. Social Security was passed in 1935.
38. Steele, op. cit., p. 106. The actual landing was 18 miles SE of the city.
39. Wright, op. cit., p. 315.
40. James P. Baughman (ed.), History of American Management, Selections from the Business History Review, p. 29. The citation is from an article by Alfred D. Changler, Jr., "The Railroads: Pioneers in Modern Corporate Management."
41. Baughman, op. cit., p. 30.
42. A record of a conversation with a plant manager in 1855, quoted by Milton, op. cit., p. 34.

IV. THE CIVIL WAR PERIOD

INTRODUCTION

The Civil War "was the last of the old wars as well as the first of the modern wars by twentieth century standards. Its modernity extended from the comprehensiveness of its mobilization to the grim tragedy of its final casualty lists."¹

The year before the Civil War started the armed forces of the United States totaled 27,958 officers and enlisted men. Of this number 16,215 were in the Army, 9942 were in the Navy, and 1801 were in the Marine Corps. Of the total number in the active forces, 3276 were officers. Of this total, oddly enough, more were in the small Navy than in the comparatively larger Army--1150 versus 1080. At the peak of their strength in 1865, the year the war ended, the armed forces totaled 1,062,848, of whom 1,000,692 were in the Army, 58,296 were in the Navy, and 3860 were in the Marine Corps. The officer strength approximated perhaps 70,000, of whom the greater part were in the Army.²

Losses during the Civil War amounted to 639,568 officers and enlisted men (no breakout is available), which meant that in the Army alone a total of 2,325,000 men in all participated in the struggle. Probably more than 145,000 of these were officers.³

The problem facing the nation was clearly monumental in that the Army expanded a thousandfold and the Navy increased by 600 percent over its prewar strength. This expansion had to occur, moreover, in the wake of large-scale resignations and dismissal of officers who sympathized with the South and elected to serve in the Confederate Army and Navy.

As we shall see, the Congress turned to the Militia Act of 1792 with its restrictive conditions to provide the masses of the men needed to fight this first modern war. The quantity of officers required was initially solved by the simple expedient of having the officers of each unit elected. What should have been apparent, but

clearly was not, was that the quality of the officers so chosen was markedly deficient because they had no training.

THE ARMY: FROM VICTORY TO THE DARK AGES

In the year before the outbreak of the Civil War the Army was composed of 198 companies. Of this total "183 were strewn over seventy-nine posts of the wild frontier. The other fifteen manned the Atlantic coast, twenty-three arsenals, and the Canadian border. Seldom was so much as a battalion collected in any one place and often a small company was separated into detachments. Less than 13,000 men attempted to hold in security 3 million square miles of territory."⁴

Under these circumstances, it was impossible to even contemplate the assembly of the regular Army because of the Indian threat on the border. In addition, General Twiggs, the Commander in Texas, surrendered his entire command to Confederate forces before the Civil War broke out. Though the terms of surrender permitted withdrawal of the troops, only 1200 were withdrawn prior to the actual start of hostilities and the remainder were made prisoners. This amounted to almost one quarter of the regular Army strength.⁵

In the wake of the Confederate attack upon Fort Sumter, President Lincoln had no Army and had to rely upon the Militia Act of 1792 with its restrictive clause that required militia to serve for only three months in any given year. This ill-considered restriction meant that a great battle to end the war had to be fought within three months. Within that same period, the Army had to be trained and disciplined, and its higher ranking officers had to learn to control formations of a size they had scarcely deemed possible just a year before. In fact, most of them had been civilians or had commanded small company-sized units.

The state of affairs at the top of the Army structure was almost unbelievable. "The general officers of the line of the Army on 4 March 1861 were old men who had grown rusty and decrepit in the service."⁶ The combination of senility at the top, lack of training at all levels of command, and the lack of time to impose discipline

and to train volunteers produced its inevitable consequences at the Battle of Bull Run, where panic was widespread. But for similar although less aggravated problems in the Confederate Army, the war might have ended quickly.

The Battle of Bull Run showed, if nothing else, that the war was not going to be an easy one. Moreover, it was clear that something had to be done about the quality of leadership. The Congress reacted to these twin crises with commendable speed and passed a variety of measures, some good and some bad.

The first legislation was passed on 22 July 1861, the day after Bull Run. It ignored the problems of quantity by authorizing President Lincoln to appoint only six major generals and 18 brigadier generals to command 500,000 volunteers. The legislation avoided the problem of officer procurement by granting the authority to commission officers to the states. It also required that officer vacancies be filled by vote. Thus, the enlisted men of the companies would elect their company officers. The company officers, in turn, would elect their regimental officers. The governors, in their turn, were required to commission such selections.⁷ The volunteers were to serve for not more than three years or less than six months--a measure which almost lost the war in 1864 when most of the volunteers terminated their service.

The same legislation made an attempt to grapple with the problem of officer qualifications, whose lack had been so disastrously revealed at the Battle of Bull Run. The Act of 22 July 1861 authorized the commanders of separate departments and of detached armies to appoint a board of officers to examine "the capacity, qualifications, propriety of conduct, and efficiency" of any volunteer officer. Though the provisions of this part of the law were vitiated by the previous provision which required that officers be elected by popular vote, within eight months 310 officers had been declared unsuited for command.⁸ This was a step toward ensuring that the quality of leadership equaled the bravery of the rank and file.

Three other measures were passed in rapid succession. These were the Acts of 25 July, 29 July, and 3 August 1861. The Act of 25 July authorized an additional 500,000 volunteers and permitted the President to appoint as many general officers as were needed to command them. The Act of 29 July increased the size of the regular Army and permitted regular officers to be transferred to volunteer units and volunteer officers to regular units if that were conducive to the greatest efficiency. The important provision of the Act of 3 August for the future quality of the officer corps was that it made retirement mandatory for the first time in the history of the Army. This provision deserves a closer look.

An important part of the act said that "The Secretary of War, under the direction of the President, shall, from time to time, assemble an Army Retirement Board...." That board would then have the responsibility to "inquire into and determine the facts touching the nature and occasion of the disability of any officer who appears to be incapable of performing the duties of his office...." Then if the board found the officer in question incapable of performing those duties, it could transmit those findings to the President through the Secretary of War. If the President approved the findings of the board, the officer in question would then be retired from active service and his name would be "omitted from the Army Register." Finally, an officer could be retired by the President upon the officer's "own application, or by reason of his having served forty-five years, or of his being sixty-two years old...." Provision was made for a "full and fair hearing."⁹

The act was intended to replace the older generals and permit younger men to command the unprecedentedly large forces which the Civil War needed. The act did just that and many of the new generals were young men. Some, like George Custer, were in their twenties. Others like McClellan and Grant, were in their forties.

One other significant act of legislation of the Civil War indirectly affected the quantity of officers. The principle of a compulsory federal draft of manpower was reaffirmed by the Congress on

3 March 1863 when it passed, with a comfortable margin, "An Act for Enrolling and Calling Out the National Forces, and for Other Purposes."¹⁰ Actually two states, Iowa and Missouri, had used the threat of a draft in 1861 to induce men to volunteer. From a federal standpoint there was no authority for a national draft except for an obscure statement in the Militia Act of 17 July 1862 which said that the President could "make all necessary rules and regulations" for those states which did not have adequate militia laws. Based upon a very broad interpretation of this wording, President Lincoln directed the Secretary of War to establish the necessary rules for a draft. The machinery for this was established by General Order No. 99 of 9 August 1862. There was an immediate and violent reaction to the order and draft riots broke out in Wisconsin and Pennsylvania. In addition, there was a general wave of protest from the population itself. The result was that the draft did not go into effect in 1862 (the Confederacy had passed a comprehensive draft law on 16 April 1862). When the Congress reaffirmed the principle of the draft, it established federal machinery to implement the law instead of placing the burden upon the state governments as did General Order No. 99. Even so, there was sporadic resistance throughout the nation which finally culminated in riots in New York that took the Army and the local police four days to quell.

The procurement of a high quality officer corps continued to be a vexing problem during the Civil War (as it has in all of our wars). A Congressional gesture toward ensuring quality was an appropriation of \$50,000 to purchase tactical manuals for volunteers. The most popular works were General Scott's Infantry Tactics, Hardee's Rifle and Light Infantry Tactics (this had been the official text since 1855 and was retained despite the defection of its author to the Confederacy), and Silas Casey's Infantry Tactics, which officially superseded Hardee in 1862. The ultimate excellence of the Grand Army indicated that the volunteer read these books and profited from them.¹¹ In fact, as has been the case in all our wars, once trained the volunteers differed in no significant detail from the regulars.

In June of 1862 the Congress passed the Morrill Act, which was to have far-ranging implications for the training of qualified officers within civilian colleges. The act was actually the forerunner of the Reserve Officers Training Corps (ROTC). The Morrill Act was inspired by Mr. Morrill's friendship with his neighbor Alden Partridge, a former superintendent of the United States Military Academy. Partridge, upon leaving the Army, had founded the American Literary, Scientific, and Military Academy (now Norwich University). Its mission was to provide officers for the national defense who would be "identified in views, feelings, and in interests, with the great body of the community." In other words, the main purpose was to provide professional training for the future officers of the militia. Similar colleges were founded in the south: Virginia Military Institute in 1839 and The Citadel in 1842.

The Morrill Act (also known as the Land-Grant Act) of 1862 offered each state tracts of federally controlled lands. The funds from the sale of these lands were to be devoted to "the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts...." Unfortunately, the act did not spell out such necessary details as whether the course of study was optional or mandatory, who would be responsible for its administration within the government, the length of the course of military study, or even whether the government should keep track of the graduates. Therefore, needed supplemental measures were passed in 1866, 1870, 1888, and 1891 to authorize issuance of equipment, assignment of officers as instructors, the wearing of uniforms, and similar administrative details. The program was somewhat sporadically monitored, although by 1898 there were organized military departments in 42 colleges. However, the contribution of college military training to the Spanish-War effort is unknown because the War Department kept no records of the graduates who had received military training.¹²

The ultimate determinant of quality in the officer corps proved to be combat experience itself. Thus, after the war had been in progress and battles had been fought, the Army could supply itself from a reservoir of officers seasoned by the rigor of combat. As the war went on, the most common method of securing officers was to promote them from the ranks. The "promotion bullet" very frequently exacted a toll of the most capable but, fortunately for the Army, the reservoir of experience was enough to fill the vacancies so created by officers of increasing quality.

The Civil War marked the official entry of the Negro into American military history, even though they had served in the Revolution and with Jackson at New Orleans in the War of 1812. The Negro regiments which were mobilized were "officered almost entirely by white men,"¹³ and there was a long struggle to obtain equality of pay. However, by the end of the war a total of 186,017 Negroes had been mobilized into 120 infantry regiments, 12 heavy artillery regiments, one light artillery regiment, and seven regiments of cavalry.¹⁴ The number or quality of Negro officers is unknown.

When the Civil War ended in 1865, the Army had reached a peak strength of 1,000,692.¹⁵ Consistent with past policies, the Congress imposed immediate force reductions. The rapid demobilization which followed reduced the strength of the Army to 57,072 in 1866 and by the mid-1870s the strength had stabilized at roughly 27,000 officers and men, a figure which was to remain almost unchanged until the Spanish-American War.¹⁶

One historian has named this period the "Dark Ages" of the Army.¹⁷ His reasons were straightforward. By 1869 the Army was scattered among 255 posts. In all these posts, there was scarcely a garrison which had a force greater than a company. Yet these scattered units were constantly at war against the Indians, who fought a cruel and incessant guerrilla war. The forces engaged were generally small and the art of commanding large units could not be practiced.

More serious, however, was the resultant effect: the isolation of the Army from its contacts with the civilian world. "The Army had relatively little need for the products of industry...only a small group of business concerns became regular military suppliers."¹⁸ The arts of logistics and of high command simply could not be learned under the conditions which existed. It is safe to say that some of the scandals involving the supply of troops which arose after the Spanish-American War can be attributed to this set of circumstances.

It is small wonder then that the Army felt itself neglected in almost every sense of the word. Army expenditures were steadily lowered from their Civil War peak of over \$1 billion to \$35 million in 1871. They hovered about that figure for the next quarter century, varying from a high of \$46 million in 1873 to a low of \$29 million in 1880. The shortage of funds made it impossible for the military to experiment and develop new techniques and weapons of warfare. Both the Army and the Navy, for example, continued to use smoothbore cannons long after foreign powers had replaced them with rifled cannons. The Army seldom was able to bring together more than a battalion of troops at a time.¹⁹

The period was not one of unmitigated gloom for the management of officers. Ignored and isolated, the officer corps was able to theorize about the attributes needed to forge a professional corps,²⁰ and many of the ideas now accepted in personnel management were enunciated. Foremost among the theorists was Major General Emory Upton, a protege of, and encouraged by, General Sherman. Upton foresaw the need for many of the managerial devices used today. In a paper, he urged establishment of advanced military schools, the creation of a general staff corps, a comprehensive system of personnel reports by superiors on their subordinates, the compulsory retirement of officers, and examinations as a prerequisite to promotion.²¹ Time was to pass before these ideas were implemented, but at least their need had been made known to an officer corps ready for change and upon whom Upton's manuscript "attained a remarkable influence long before it appeared in print."²²

In some ways the organization of the Army itself did much to retard proper management of available officer personnel. The villain was the autonomous bureau structure of the War Department that endured until 1913. It had been "established after the War of 1812 by Secretary of War John C. Calhoun in an effort to assert centralized control over their [the bureau's] operation."²³ Ten separate staff departments²⁴ were created to handle the fiscal responsibilities of the Army. These staff departments [or bureaus] after the Civil War became virtually autonomous and managed their own officers while the Commanding General of the Army managed the remainder of the officers of the Army. In such an environment, "petty quarrels...and slow promotion rent the officer corps [and]...aspirants to promotion shamelessly cultivated influential businessmen and politicians."

THE NAVY: FROM VICTORY TO STAGNATION

The Navy's role in the Mexican War was small but significant. On 7 July 1846, a squadron in the Pacific under the command of Commodore Sloat took possession of Monterey and two days later took possession of San Francisco. Later a joint force of sailors, marines, and soldiers marched from San Diego to Los Angeles and after two days of battle recaptured the city and made permanent the authority of the United States in California. The chief work of the Navy, thereafter, was in the eastern theater of war and consisted of blockade, transportation of the Army, and fire support of ground operations where feasible. An excellent example of naval planning was the operation at Veracruz in which the Navy disembarked 10,000 soldiers in a single day and later provided excellent artillery support from the ships as the troops stormed the city.²⁵

Despite the action at Veracruz, the Mexican War was largely a land operation. Moreover, our foreign policy needs for a navy were few. There was thus no major increase in the fleet which meant that there was no opportunity for the rapid promotions that are usual at the outbreak of war. This absence of opportunity merely accentuated the promotion issue which was, almost certainly, the single most

vexing concern in the minds of officers during the period before and after the Civil War.

The slow rate of promotion rankled officers. It meant that young officers spent their most productive years in the lower ranks and, even when promoted, had but very few years of duty in the higher ranks. This slowness was a product of three factors: promotion by seniority, the absence of a system of forced retirement or forced separation, and the small size of the forces. The first meant that until a vacancy was created no officer could be promoted to the next rank; the second meant quite literally that only death could provide that vacancy; and the third meant that few vacancies were actually created.

Slow promotion was in some measure more irritating to naval than to Army officers because the rank structure of the Navy had no admirals. A naval officer could only look forward to two promotions, at most, and the route to both was slow. In addition, the absence of a retirement system meant that captains (the highest rank) from the War of 1812 held onto their positions at all costs. Hence promotion seemed even slower than in the Army.

The personnel problems created by the age of senior officers became a matter of concern to the Congress because the Navy after the Mexican War began to enter the steam era. From 1843 to 1860 the number of sailing ships in the Navy decreased from 59 to 44 and the number of steamships increased from six to 38. Thirty of these new steam-driven vessels were added during the six years between 1854 and 1859.²⁶ These acquisitions added personnel problems of the education of officers, equivalent ranks of Navy and Army officers, a retired list for officers, and the relationship between the staff and the line.

The need for education was solved, in part, by the founding of the Naval Academy in 1845 and its expansion to a four-year course in 1850-1851. The content of the curriculum became part of the controversy over the relative rank of the staff and of the line.

In the Navy, as in the Army, rank established an individual's place in the hierarchy of the society in which he lived. Rank had a particularly important meaning in the crowded conditions of shipboard life. Rank determined the size of an officer's quarters, the position of his chair in the mess in which he ate, his relative position on entering and leaving the ship, his place of relaxation on the deck, and the insignia which he wore. In other words, the rank of an officer on board ship was a measure of his self-esteem; to be without rank was to be looked upon as a common seaman.

Initially staff officers such as the surgeon, engineers, and pursers were without equivalent rank. Therefore, their lot on board ship was at the whim of their commanding officer and their shipmates. If these individuals were enlightened and compatible, the staff could enjoy life aboard ship; if not, the life of the staff could be unpleasant to an extreme.

The staff versus line controversy concerning relative rank was settled in part when Secretary of the Navy Bancroft issued the general order of 31 August 1846 which required surgeons of the fleet and surgeons of more than 12 years standing to rank as commanders; surgeons of less than 12 years service were to rank with lieutenants; those eligible to become assistant surgeons below lieutenants, and assistant surgeons were to rank below masters. Though this general order was, as expected, unpopular with the line, the Congress formalized the relationships expressed. Engineers had a harder time gaining the concessions made to surgeons but they, too, finally were granted equivalent rank in January of 1859.²⁷

By the decade of the 1850s, it was all too clear to the nation and to the majority of thinking officers of the Navy that some sort of retired list was needed. For example, in 1854 the youngest captain in the Navy was 56 years of age. This meant that most of the remaining 67 captains were in their 60s or older. Most commanders were older than 50 years and some lieutenants were in their late 40s. Equally obvious was that under the existing laws and regulations, lieutenants would be 53 before they could be promoted to commanders, and commanders when promoted to captains would have to be 74 years old!

The Congress finally acted to rectify this problem which was threatening not only the efficiency of the Navy but the new era of steam. On 28 February 1855, the Congress passed "an Act to Promote the Efficiency of the Navy." This act established a retired list and provided that a board of 15 naval officers be appointed to select those who were to be placed on the list.²⁸ Not unexpectedly, the findings of the board created a controversy both in the press and in the Congress. The final result was that the Congress weakened its initial action and passed a law in 1857 that gave each of the retired officers a hearing so that his case could be reexamined. In the end, only some of the objectives of the Act of 1855 were attained. In fact, when the Civil War began, "the Navy was moribund; there was a captain afloat in command nearly seventy years of age; the commandant of the Norfolk Navy Yard was sixty-eight; the Commandant at Pensacola, sixty-seven."²⁹

As discussed above, slow promotion was especially irritating to naval officers because the rank structure of the Navy contained fewer grades than did the Army's.³⁰ This meant, in practice, that the naval officer could look forward to two promotions at most. Moreover, the absence of the rank of admiral in the Navy meant that this symbol of high command was unobtainable. In effect, the Congress had said that our foreign policy required a small fleet. Therefore, the opportunities available to the officers of Great Britain and France with their large fleets were simply not available to an American officer.

The Civil War required changes in our foreign policy outlook. Also, naval victories created a ripe climate for review of naval problems.³¹ Specific relief from the standpoint of the naval line officer was found in the Act of 16 July 1862. It authorized admirals and divided line officers into nine grades: ensigns, lieutenants, masters, lieutenant-commanders, captains, commodores, and rear-admirals. It also provided for filling these grades by the appointment of a board of officers to select those worthy of promotion. The officers thus selected were to be promoted according

to seniority until the several grades (with the exception of admiral) were filled. During wartime admirals were to be selected from those who had demonstrated their courage and skill; in peacetime rear-admirals were to be promoted according to the method of promotion used for other grades. The act also established the relative rank of Navy and Army officers.³² Unforeseen as a future management problem was the creation of the Civil War "hump" in the naval officer corps.

The Act of 1862 strengthened two other developments which were important from a personnel standpoint: the Act of 3 August 1861, which provided for an Army and Navy retired list, and the establishment by the Navy of an "office of detail" in March 1861. The Act of 3 August was further enhanced by legislation on 21 December 1861 which made retirement mandatory at age 62 or after 45 years of service.

The Act of 3 August 1861 was necessary to strengthen the upper grades. Many officers, incapacitated by old age, ill health, and general loss of vigor, were unable to perform the duties of their grade. The officers at the top of the list of naval commanders were 60 years old, and some of the lieutenants were 50 years old. The act provided for the voluntary retirement of such officers after 40 years of service. In addition, boards were established to select incapacitated officers who would be required to retire or, if warranted, be discharged.³³

A final modification to the Act of 1862 was passed on 21 April 1864. This legislation provided for an examining board of officers senior to those who were to be considered for promotion. All officers below the grade of commodore had to pass an examination before such a board to qualify for promotion to the next higher grade. The series of acts providing for examining boards and the system of promotions prescribed is the basis of the present system of naval boards for the promotion of officers.³⁴ There have been modifications, but the essential elements of the system were established during the Civil War.

The office-of-detail was established to assist the Secretary of the Navy in the assignment of officers. This duty was expanded when the Civil War began to include "the appointment and instruction"³⁵ of volunteer officers. The office was, in effect, the BUPERS (Bureau of Personnel) of its day and must be considered its forerunner.

In what was a recurring pattern in personnel management in the services, forward-looking steps were followed by decay. On the heels of its victories in the Civil War, the Navy was drastically reduced in the number of ships commissioned and, as a natural consequence, in the number of officers needed to man the fleet. Promotion stagnation was again rampant. Indeed, throughout the administrations of Grant and Hayes the Congress continually asserted that the number of officers was excessive. Steps were instituted to reduce the number of officers in several grades, and in 1873 a law was passed providing that vacancies in the grade of admiral and vice-admiral not be filled.³⁶ In fact, "during the twenty years succeeding the Civil War the naval service did not offer an inviting career to the ambitious and energetic officer."³⁷

The final naval personnel management setback occurred after the war. A revival of the staff versus line controversy, it grew out of revocation early in the Grant administration of an order of 13 March 1863 that had fixed the rank of the staff. The revocation was based on a decision by the attorney-general that the original order was illegal. The resultant degradation in rank was considered humiliating by the staff. Though it involved no loss in pay, it did require removal of insignia of rank and its substitution on the uniform by one of inferior rank, which of course meant that the privileges associated with the higher rank were also lost.

The controversy finally reached the Congress. The fight centered around a bill introduced by the medical corps to obtain "positive rank" for surgeons. This positive rank was a coveted possession of the line but the whole naval staff now joined the surgeons in an attempt to obtain it. The House agreed with the staff but the Senate held out merely for "relative rank," which the line agreed to yield to

the staff. The Senate won "and the staff was greatly grieved."³⁸
The controversy abated but did not die.

A SIGNIFICANT PERIOD

A young man after the Civil War might have been interested in an Army career. Not only was the Civil War the first of our modern wars, it laid the basis for the personnel management technique of mandatory retirement based both on age and on years of service--a provision which still exists in slightly modified form in today's legislation. In addition, the concept of examination for promotion was introduced--again, a provision which existed in somewhat modified form until World War II. Finally, the grade structure of the armed forces was established by the authorization of the rank of admiral for the Navy and the establishment of intermediate grades to bring that service close to the Army's grade structure. With minor modification, the grade structure of the armed forces at the end of the Civil War is the same as the grade structure today.

There were equally significant innovations to solve the twin problems of quantity and quality of officer personnel. Probably the most important from the standpoint of quality was the Morrill Act of 1862, which laid the foundations of the Reserve Officers Training Corps (ROTC). ROTC played an important role in training the future citizen officer in World Wars I and II.

Of almost equal importance was the establishment of the principle that the nation could draft its young men to serve in the armed forces in time of war. This assured that the necessary quantity of men would be available at the beginning and during the course of a war. In an indirect sense, it also meant that the necessary quantity of men who could be trained to be officers would be available within the armed forces. In this sense, the establishment of the principle made possible the program later known as the Officer Candidate School (OCS), which provided the huge number of second lieutenants and ensigns needed by the armed forces in World Wars I and II.

It is interesting to speculate on how one of the principles introduced to increase the quality of officers was later changed. When the Civil War began, the age of the senior officers of both the Army and the Navy was so great that they were essentially incapable of performing arduous combat duties. There was no practical way that the General in Chief, General Winfield Scott, could take to the field and lead the Army against the Confederacy--he was simply too old and, it is said, had to be hoisted onto his horse because of his physical condition. There was, however, no inducement for him to retire and make way for a younger man. There was no retirement system, so if he did retire he would immediately go to zero pay. The only other alternative would be for the President to relieve him of his duties or else adopt some device by which the General in Chief could be bypassed. Either alternative probably would have been politically troublesome at a time when Mr. Lincoln needed to devote all his time to the business of conducting the war. To its credit, the Congress apparently understood this situation of distasteful alternatives and passed the retirement legislation which forms the basis of today's system.

The retirement legislation was, it must be noted, originally a device to increase the efficiency of the officer corps at its highest levels. Lack of retirement held officers in lower ranks simply because they had no incentive to leave the service. A man would become a pauper unless he had private means of support.

Today the retirement part of the package available to the officer is offered as an inducement to him to enter the service and remain until eligible to retire at certain selected retirement points (years) that depend on the rank he has attained (lieutenant colonels must retire at 28 years of service, colonels at 30 years of service, and some general officers may stay until 62 years of age). However, the retirement system seems to contain inconsistencies because the incentives induce most officers to retire before their mandatory retirement points.³⁹ Experience is lost by early retirement, officers receive costly training for a shorter career versus a longer one, and there is an increase in retirement costs.

One final note. The Navy had not yet come to the conclusion that longevity pay could act as a tradeoff for slow promotion. Although the appropriation Act of 1870 specifically authorized a "longevity ration" for the Army, there was no such mention in the Navy portion of the act. Moreover, there was considerable discrepancy between the pay of the Army and Navy, with the Navy receiving more money.⁴⁰

The perceptive young man could conclude, with some justification, that progress was being made in the management of the officer corps. Progress was spotty but in the right direction.

NOTES

1. Kreidberg, op. cit., p. 83.
2. All numbers in this paragraph are from Statistical Abstract, op. cit., p. 1142. Data on officer strengths during the Civil War are not available. The officer strength is based on one officer per 16 enlisted personnel. The ratio is the average of the ratio in the years just before and just after the Civil War.
3. Kreidberg, op. cit., p. 706. The officer strength was obtained as explained in the previous footnote.
4. Ganoe, op. cit., p. 244.
5. Kreidberg, op. cit., p. 89.
6. Ibid., p. 88. The officers were the General in Chief, General Winfield Scott, 74; Brevet Major General John E. Wool, 77; Brevet Major General David E. Twiggs, 71; and Brigadier General William S. Harney, 60.
7. Ganoe, op. cit., pp. 259, 260.
8. Ibid., p. 260.
9. Military Laws, 9th ed., op. cit., pp. 489, 490.
10. Kreidberg, op. cit., has a short summary of the draft on pp. 103-109. The effect of the draft law was weakened by the provision that a man could be permanently exempt from the draft by payment of \$300 or by furnishing a substitute. See also Ganoe, p. 284.
11. Weigley, op. cit., p. 230.

12. See Gene M. Lyons and John W. Masland, Education and Military Leadership: A Study of the ROTC, Princeton University Press, Princeton, N.J., 1959, *passim*.

13. Weigley, *op. cit.*, p. 211.

14. *Ibid.* See also Smithsonian, July 1977, pp. 89-91, for an account of Mrs. Sophia Holmes, the widow of a black soldier killed at Bull Run. Mrs. Holmes was one of the first female employees of the Bureau of the Mint.

15. Weigley, *op. cit.*, p. 567. The same figure also appears in Statistical Abstract of the United States since Colonial Times, series Y904-916, U.S. Government Printing Office, p. 1142.

16. Weigley, *op. cit.*, p. 567. See also Statistical Abstract, *op. cit.*, series Y904-916.

17. Ganoe, *op. cit.*, p. 298.

18. Huntington, *op. cit.*, p. 227. Note that this also applied to the Navy, which did not start construction of an armored, steam Navy until the 1880s.

19. Custer's 6th Cavalry had never fought together as a regiment prior to the Battle of the Little Big Horn.

20. This is one of the major theses of Huntington's book.

21. The recommendations appear at various places in Upton, *op. cit.* Several are specifically cited among "causes of weakness," ten of which are summarized on pp. xiii and xiv. Upton was also the originator of the "fours" concept which led to the old squad drill that remained in effect until World War II. See also Major General Emory Upton, Armies of Asia and Europe, reprinted by Greenwood Press, New York, 1968, *passim*, where Upton's ideas were developed during an 18 month inspection of foreign armies. He specifically lists several of his ideas on p. viii. See also Huntington, *op. cit.*, p. 235.

22. Weigley, *op. cit.*, p. 277. The actual manuscript was not published until 1904, although it had come to the attention of Elihu Root earlier.

23. James E. Hewes, Jr., From Root to McNamara: Army Organization and Administration, 1900-1963, U.S. Army, Washington, D.C., 1975, p. 1.

24. Cosmas, *op. cit.*, p. 16.

25. Clark, *op. cit.*, gives more details in Chap. XIV.

26. Paullin, op. cit., p. 219.

27. Ibid., pp. 286, 287.

28. Ibid., pp. 240-243.

29. Clark, op. cit., p. 239.

30. See, inter alia, Army and Navy Chronicle, Vol. I, 3 January 1835, p. 4; 5 November 1835, p. 357; 17 December 1835, p. 404 (an article signed "Subaltern"); Vol. II, 4 February 1836 (answers "Subaltern"); Chamber's Journal, Vol. I, 10 September 1898, pp. 641-643; The United Service, Vol. II, March 1880, pp. 269-288; Cosmas, op. cit., passim; Huntington, op. cit., p. 207; Weigley, op. cit., Chap. 12; Ganoe, op. cit., Chap. IX; Paullin, pp. 235-236.

31. A joint Army-Navy task force captured Hatteras Inlet in North Carolina in August 1861; Forts Walker and Beauregard and Port Royal, South Carolina, were captured by Commodore S. F. Dupont and General Thomas W. Sherman in November of 1861; Forts Henry and Donelson were captured by Commodore A. H. Foote and General U. S. Grant in February 1862; and Farragut's achievements at New Orleans, Vicksburg, and Mobile are some of the important national morale building events. See Paullin, op. cit., pp. 278-279.

32. Ibid., p. 301. An effort had been made in 1850 to fix relative rank but the Congress had failed to act (ibid., p. 235).

33. Ibid., pp. 299-301. See also Huntington, op. cit., p. 207; Weigley, op. cit., pp. 229-330.

34. Paullin, op. cit., p. 301.

35. Ibid., p. 259.

36. Ibid., p. 359.

37. Ibid.

38. Ibid., pp. 360, 361, gives more details.

39. Glenn A. Gotz and John J. McCall, "The Retirement Decision: A Numerical Analysis of a Dynamic Retirement Model," The Rand Corporation, unpublished study.

V. THE SPANISH-AMERICAN WAR PERIOD

INTRODUCTION

The period between the end of the Civil War and the Spanish-American War was one of frustration for the Army and the Navy. Both services were largely ignored by the Congress until the decade just before the Spanish-American War when it became obvious to all that the Navy was obsolete and hardly a match for even so small a naval power as, say, Chile, who possessed several modern armored cruisers. The Navy received authorization for new vessels and this "new Navy" with its modern armored vessels was instrumental in the lopsided victory over Spain. The Army was also recognized as needing attention and gradually began to be centralized from the widely dispersed posts from which it had successfully pursued the Indian Wars.

From a personnel standpoint, the major problem was still the slow rate of promotion and the professional stagnation that derived from it. Additional measures were taken to strengthen the forced retirement legislation. The Army also founded a series of individual branch schools for the professional education of its officers in their specialties, and special schools began the important work of training staffs. New legislation for the regulation of the militia strengthened the ability of the nation to raise units in time of war. Finally, in 1903 the Army was authorized a General Staff. As an outgrowth of the victory over Spain, the Army occupied the Philippine Islands (where guerrilla war raged) and confronted for the first time the personnel problems inherent in an overseas rotation policy.

THE ARMY

The armed forces of the Civil War were demobilized after the war ended, and the regular Army which remained became little more than an Indian constabulary force. Less than a year before the war with Spain began, the Army was described in unflattering terms by the New York Times. The editor wrote "that we could offer no resistance on either

coast to a first-class or second-class naval power, and that two Army corps could traverse the country as far as their commanders chose to take them without meeting any effectual opposition."¹

This deplorable state of readiness was a product of overconfidence in the ability of the fraternal Grand Army to reassemble as a fighting unit some 30 years after the Civil War had ended. It was also due to neglect and the faulty military policies of the Congress, and the attendant inability of the Army to prepare officers on active duty for any field command higher than that of a company. The total strength of the Army during the period was almost constant at about 2100 officers and 25,000 enlisted men. This complement was spread out over about 255 posts.² The highest organizational structure was the regiment, but the unit was rarely assembled and the usual garrison at a post was a company. In addition, "two companies of each infantry and cavalry regiment existed only on paper; the officers assigned to them were dispersed to teach...."³ In a monumental display of either absent-mindedness, indifference, or deliberate insult, the Congress failed to pass an appropriation bill to pay the Army in fiscal year 1877-1878. Officers had to live off of savings or borrow.⁴ Finally, there were "no detailed war plans nor a staff" to make them.⁵ "Slow promotions rent the officer corps" and "young officers who tried to introduce reforms sometimes were destroyed by hostile seniors...."⁶

The period had not been without gains in the effort to improve the quality of the officer corps. Officers were given a forum to discuss ideas when "The Military Service Institution of the United States" was founded. This was a voluntary society for military study and discussion. The group was headed by General Sherman, the Commanding General of the Army, and the studies made by the group resulted in proposals which found their way "in a slow and halting process" into "plans and Congressional enactments."⁷ Many of these proposals were designed to increase the professional competence of officers and had, therefore, the ultimate effect of increasing the quality of the officer corps as a whole.

One of the leading members of the group was Major General Emory Upton, a protege of General Sherman. Upton visited Europe and Asia, as noted earlier, and came back convinced of the necessity to establish advanced military schools, compulsory retirement systems,⁸ examinations for promotion, and other personnel management practices which were daring and innovative for the period. Most of Upton's ideas, at one time or another, have found their way into the personnel system.

It is hard for the officer or civilian of today to realize that there was really only one Army school until 1867. It was, of course, West Point. West Point was, however, essentially an engineering school and ignored the special problems of other branches of the Army. The first real advance came in legislation passed on 13 July 1866 which contained a provision in the appropriation act that allowed the superintendent of the Military Academy to be an officer of any branch of the service, not necessarily an engineer. The effect was to make West Point a school for all branches of the Army. Other events transpired in quick order; in 1867 the Artillery School was reestablished permanently.⁹ The School of Application for Infantry and Cavalry was established in 1881; the Engineer School of Application in 1885; and the School for Cavalry and Light Artillery was established in 1892.¹⁰ This period of intellectual ferment has been called "The Army's Renaissance."

The Army, as it always had been, was still two armies. The militia had to be taken into account because in any future war its officers would be probably more numerous than regular officers. So the militia, too, began to receive attention and its officer corps received the benefit of the new ideas. The record was uneven but "compared to the somnolent, disorganized militia of the late 1860s," the militia "was much improved but it was far from a ready reserve for war duty." The lack of readiness can be attributed in large part to a lack of military training of the officers for "less than half of the states conducted regular instruction courses for their officers, and even fewer required examinations for appointment or promotion."¹¹

There was one bright spot in the picture, but its effect is unknown because of administrative indifference or incompetence or both. The Morrill Act of 1862 had firmly established the foundations of officer training programs in land grant colleges. However, each of the colleges which adopted the program had its own ideas as to how the program was to be conducted and there was little enthusiasm in the War Department to take control of the program and unify the type of training offered. Thus some of the colleges made the program a four-year one, others made it three years, some made it a two-year program, and others did not require it at all because the wording of the act was vague as to whether the program was compulsory or voluntary. The act had also not provided for assistance to the colleges from the federal government, so no officers were assigned to the faculties to conduct training. The result was that the colleges made the teaching an extra duty for those of its faculty who had served in the regular Army and were now retired or for those members who had been in the volunteers during the Civil War. The record of achievement was spotty and the Congress finally awoke to its responsibility.

In a series of supplementary acts in 1866, 1888, and 1891 the Congress authorized the War Department to detail officers to institutions having the training programs. By the time the Spanish-American War broke out, the number of such authorizations for regular Army instructors had increased to 100. In addition, by an act in 1870 the colleges were authorized equipment, small arms, and artillery. The wording of the act was such, however, that the War Department was not under any compulsion to send equipment. Therefore, the full implementation of the Morrill Act actually relied upon the establishment of a working relation between the colleges involved and the War Department. The feeling was general in all the colleges that the War Department was less than enthusiastic in granting the equipment and in carrying out its responsibilities. However, in 1889 the Department did formalize relationships with the colleges and proposed that the Professor of Military Science and Tactics be a

full-fledged faculty member, that students be required to wear uniforms while undergoing training, and that the training be made mandatory. These proposals did not become general until the land grant colleges were absorbed into the ROTC system established in 1916.

There was one other evidence of incredible personnel mismanagement on the part of the War Department. Though there were 45 colleges with training programs at the outbreak of the Spanish-American War, there was no way to know who the graduates were because no records had been kept. Though most of those who underwent training presumably ended up in the militia of their respective states, there is no way of knowing what their impact was on the ability of the Army to provide quality officers in the quantity required by the expeditions against Cuba and the Philippine Islands except that we know President McKinley did appoint 195 graduates to fill positions in newly created vacancies in the regular Army.¹²

As in previous periods, a major flaw in personnel management was the slowness of promotion. The same litany of three factors was still at work here: first, the promotion by seniority within regiments; second, the absence of forced retirement; and third, the small size of the officer corps. As a trinity these factors made ability a secondary consideration. Only seniority counted.

The first attempt at a comprehensive effort to attack the problem was taken on 16 June 1890, when legislation was passed which changed the basis of the promotion system. Promotion below the grade of brigadier general was to be within each arm, corps, or department of the Army. This meant that officers could thereafter be transferred without the loss of rank entailed by the previous narrow limits of regimental promotion.¹³ In a major effort to improve the quality of the officer corps, the same legislation stipulated that rigid examinations for promotion be taken by all officers below the grade of major, and later in the decade a major innovation mandated efficiency reports for all officers. The War Department established the Adjutant General's Office and instituted annual efficiency reports for all officers to make it easier to eliminate the inefficient and to

facilitate the selection of qualified officers for important assignments.¹⁴ Commanders were thus required to establish acceptable levels of efficiency and professional competence for the officer corps.

The services had adopted and engaged in personnel management of a sort which would not be seen in industry for over half a century. The imperative, of course, was the national defense, where old and incompetent commanders at every level could endanger the security of the nation. Unfortunately, the measures taken were not completely successful for a reason basically beyond the control of the services.

The obstacle was the atmosphere of politics, in its most pejorative sense, which permeated the nation's government at every level, state and national. This was the era of Boss Tweed and of organizations like Tammany Hall and the National Guard Association.¹⁵ In no earlier time, it seems, were more organizations formed to assist the interests of special groups in all walks of life, and certainly the political pressures to obtain rank or officer status within the militia were unprecedented.¹⁶ The power of these political groups is vividly highlighted in a remark a worried Theodore Roosevelt, then running for governor of New York, made to a friend: "the National Guard will give a majority against me...."¹⁷ More recently, President Truman remarked of the Gray Board Report in 1948, "It is a most interesting document and one that deserves a lot of study but, at this time, it is filled with political dynamite, and during a presidential campaign can defeat its own purpose."¹⁸ The fact was that at the turn of the 20th century political power could influence one's Army career even in the lower ranks.

This brief excursion into politics provides background to some of the writings of the period concerning promotion. Articles would generally acknowledge that promotion by selection was the theoretically ideal system. Then after discussions involving undue influence on the board by politics (the word might be disguised or euphemistically referred to by another term), the conclusion would be reached that promotion by seniority or some variant of it had to

stay.¹⁹ The conclusion to stay with the seniority system modified in some way meant that slow promotion and its stultifying effect remained with the Army until the outbreak of World War II when, for all practical purposes, promotion by merit alone became the rule in the Army of the United States. (In the huge citizen Army which fought World War II, every regular officer possessed two ranks--his regular Army rank and his temporary rank.) The system of seniority, even in the regular Army, was formally discarded in 1947.

In any case, the Army entered the Spanish-American War in a relatively poor state. Fortunately for the United States, Spain was a weak and ineffectual military power and the war was won. "Combat casualties were comparatively low--twenty-two officers and 244 enlisted men were killed, seven officers and ninety-six enlisted men died of wounds and 115 officers and 1,749 enlisted men were wounded but not mortally."²⁰ Public opinion was aroused by miserable medical service, supply scandals, and a near panic caused by epidemic illness.²¹ Though many of these charges were exaggerated,²² they were to lead to needed reforms, including the management of officer personnel.

A new personnel management problem developed. Overseas assignments were a legacy of the Spanish-American War and the Philippine Insurrection which followed. In all, the Army in the Philippines fought "2,811 separate actions and battles in a little over three years. In most of these engagements the troops had been ambushed."²³ Concurrently with the rebellion in the Philippines, the Boxer Rebellion in China required the intervention of troops to assist our allies in relieving the British Legation Compound in Peking. These two rebellions and the resultant stationing of Army units in China and the Philippine Islands were the beginnings of the overseas rotation problem--a major problem to this day. The tour length seems to have been three years,²⁴ the same as it is today.

A major personnel management gain derived from the establishment of the General Staff in February 1903²⁵ by Elihu Root and the founding of the Army War College to train officers for the General

Staff. Significantly, the "General Staff was to consist of a First Division, dealing with administrative matters; a Second Division, responsible for the gathering of military information; and a Third Division, concerned with military education and technical matters."²⁶ This was the genesis of today's staff system and in particular those parts of it which deal with personnel management.

Incredibly, the Militia Act of 1792 with all of its imperfections was still in existence in 1898, though it later became a casualty of the war. The new legislation was the Militia Act of 21 January 1903, or as it was more popularly known, the "Dick Bill" (after its sponsor, Congressman Charles W. Dick). The Dick Act struck at the confusion that had always surrounded the word "militia," owing to its indiscriminate use to designate both the whole military manpower potential of the country and the organized military companies of the states. The law retained the principle of a universal military obligation inherited from England by the first colonies. But it discarded the general enrollment and personal weapons provisions of the old militia laws, which had fallen into disuse anyway. All the able-bodied manpower of the states was declared to constitute the "Reserve Militia."²⁷

The National Guard companies and regiments were designated the "Organized Militia." Henceforth, to enhance the usefulness of the Organized Militia as a reserve for the active Army, the United States was to issue arms and equipment to the National Guard without charge. Annual Congressional appropriations which previously had been restricted to the purchase of arms and certain specific equipment might now be used to buy military stores generally. To maintain its status and its federal aid, a National Guard unit had to hold at least 24 drills or target-practice periods a year plus a summer encampment of not less than five days in the field. The Guard units were to undergo periodic inspection by regular as well as Guard officers. The regular Army was to detail officers to the states to instruct the Guard. Occasional joint maneuvers of regular and guard formations had been held informally since the 1880s; now Guardsmen were to

receive federal pay and subsistence when on joint maneuvers with the regular Army. Guard officers became eligible to attend Army schools at Fort Leavenworth or the Army War College, and they also might receive federal pay and subsistence.

The Army remained at roughly 65,000 to 80,000 men until the unprecedented expansion of World War I. One final bit of housecleaning is of interest. The poor physical condition of senior officers (and even some junior officers) which had plagued the Army at the start of most of its wars (to that date) was recognized in a forthright action on 14 May 1908. Tests for physical fitness were put in force throughout the service with vigor. All field officers of the mobile Army were to demonstrate to a medical officer that they could ride 30 miles a day for three consecutive days. This distance had to be covered in periods of six hours for the first two days and in seven hours for the third. Field officers of the coast artillery had to walk 50 miles in three days, in a total of twenty hours, the march on any day to be in consecutive hours. If any officer could not meet the test, he was to be retired either for length of service or by a retiring board. All the junior officers below field grade were to have a physical examination each year.²⁸

THE NAVY

The Navy was somewhat more fortunate than the Army in its efforts to vitalize its officer corps. The reason was a growing awareness of the Congress and the nation (in the 1880s) of the emerging importance of the sea to the future growth of the nation. This was coupled with the simultaneous recognition of the abysmal quality of the fleet²⁹ and the efforts of a group of "Young Turks" to create a "new Navy"³⁰ of steel ships.

After the Civil War the Navy was considerably reduced in size because of the general clamor for force reduction, the feeling that future conflicts with European nations were unlikely, and because many of the vessels were of faulty design and made of unseasoned timber.³¹ The iron monitors rotted, and by 1874, there was not a

single armor-plated vessel in commission nor was there to be one for another 20 years. Our Navy was "inferior to that of any nation; even Chile's two iron clads if properly handled would have been more than a match for all our ships combined."³²

The nadir of the Navy came in 1881 when there were 140 vessels in commission but of these only 31 were serviceable³³ and of that number 25 were tugs.³⁴ The naval review for the newly elected President Garfield included the side-wheel steamboat Powhatan and the Constitution.³⁵ Of 2664 guns, 2233 were smoothbore and of the remainder only 87 were serviceable.³⁶ In contrast, European navies were modern and armed with rifled guns. One cannot escape the feeling that even one or two of the modern vessels of any of the European navies could have defeated the U.S. Navy in but a few minutes of fighting. Why such a state could have been allowed to develop is rooted in the lack of threat from weak or friendly neighbors on our northern or southern borders and in our implicit assumption that the British Navy would always be there to help. As President Jefferson had said earlier: "if danger threatens we will marry ourselves to the British fleet and nation."³⁷ In any case, there was gross complacency on the part of the Congress. Fortunately, none of our potential enemies ever tried to test the mettle of our all but worthless fleet.

Officer management was equally deplorable. For instance, the Civil War "hump" of some 858 graduates of the Naval Academy between 1861 and 1865 meant that the lower echelon of the Navy was blocked from promotion so that the top graduates of the class of 1868 remained lieutenants for 21 years. The ensuing general dissatisfaction led to many resignations, and the Annapolis classes of the 1860s and 1870s had a resignation rate in excess of 25 percent.³⁸

Even worse, there was no planning worthy of the name to rectify the personnel problem. Several schemes were proposed. The upper ranks could be reduced, promotion could be on merit, or the classes at the Academy could be made smaller. The first two were vigorously opposed and one admiral had "very serious fears" that the Secretary of

the Navy was planning to go to "that system of scoundrelism--of selecting officers for promotion."³⁹ The last scheme, reduction of Naval Academy classes, was adopted by the Congress in the Act of 5 August 1882.⁴⁰

In reviewing the literature of the period, one senses an Alice in Wonderland approach to the whole question of officer quality in the various measures discussed to reduce the hump problem--a problem which, it must be noted, has occurred to a greater or lesser extent after each of our large wars. The overwhelming concern to the Congress was cost; the concern of senior naval officers was the preservation of seniority. These twin issues reflected the personal biases of the one group and the vested interest of the other and were not in the best interests of either the nation or the Navy. The result was a solution which in effect discriminated against the one group of people who had little to say in the decision--the young midshipmen who had been misled into thinking that when they graduated they would receive commissions in the Navy. Therefore, instead of injecting young blood and the new attitudes and theories that would ensue, the Navy retained its aged officers, whose average age was about 20 years older than in modern European navies. The approach taken was at best a cynical disregard of the rights of the midshipmen and at worst a disregard for the future efficiency of the Navy. Fortunately for the Navy, the young officers did not accept the treatment they were accorded, and the attendant controversy was to result in the "new Navy" and new and beneficial concepts for the development of quality standards in the officer corps.

The resulting storm of protest⁴¹ made the 1880s one of the most turbulent periods in the history of the Navy. Midshipmen engaged in a virtual mutiny. Young officers banded together to create the "new Navy" by working to change the attitudes of the Congress and the public about the importance of the Navy and the need to increase and to modernize it. Aside from the needs for the national security, the other point was simple: increased naval expenditures meant more ships, more billets, chances for higher levels of training, and, therefore, more career opportunities.⁴²

A major argument of the young officers was the necessity to retire the elderly "deadwood" to make way for the younger and more vigorous officers. This move was opposed by elderly officers who in their younger days had, quite naturally, advanced the same argument. By 1891, the dissatisfaction among junior officers with the Act of 5 August 1882 had reached such proportions that the Navy Department convened the Phythian Board "to report upon the present stagnation of officers in the line of the Navy." This board argued for the restoration of 29 senior billets that had been eliminated by the Act of 1882. The "new Navy" needed these senior billets, and the Phythian Board saw their resurrection as a means of temporarily accelerating promotion. The board also recommended a voluntary retirement plan for captains and suggested a system of forced retirement, or "plucking," for captains who had not demonstrated sufficient ability to be awarded flag rank.⁴³

The "plucking" recommendation was ignored, but the younger officers persisted until a Congressional investigation of naval officer promotion took place in 1894. The senior officers recommended a merit system which would allow a few outstanding officers to receive accelerated promotion; the "Young Turks" countered with a recommendation to "pluck" senior officers so as to guarantee enough vacancies to assure a steady flow of promotions.⁴⁴ The joint Congressional committee did draft legislation which proposed "plucking" senior officers from the Civil War "hump." The ensuing controversy was interrupted by the Spanish-American War which delayed consideration of the promotion issue until the end of the war.

Another personnel controversy proceeded concurrently with the promotion issue--the line versus staff. It became so important that a special board was appointed on 4 November 1898⁴⁵ to "consider the matter of a reorganization of the personnel of the Navy." The president of the board was the Assistant Secretary of the Navy, Theodore Roosevelt, who wrote the report submitted to the Secretary of the Navy.⁴⁶ In it he condemned promotion by seniority which made the "promotion of an officer dependent not upon the zealous performance of

his duties but upon the possession of a good stomach and of an easy nature; while a positive premium is put upon the man who never ventures to take a risk, and who therefore never does anything."⁴⁷ Roosevelt also argued for the abolition of the engineer corps and its amalgamation into the line. His reasoning was straightforward: "Every officer on a modern war vessel in reality has to be an engineer...everything on such a vessel goes by machinery, and every officer, whether dealing with the turrets or the engine room, has to do with engineer's work."⁴⁸ This was a reform whose day had come and whose implementation would for a time meet the staff versus line controversy and the problems it entailed.

The spectacular victories of the Navy and the new territories obtained awakened Congress to the value of the Navy as an instrument of foreign policy. It also fired the imagination of the nation. From this sentiment, a series of favorable actions were embodied in the Naval Personnel Act of 1899. They included an amalgamation of the engineers with the line, increased pay, and provisions for an accelerated flow of promotions by authorization for the Secretary of the Navy to keep a list of "applicants for voluntary retirement." The volunteers were chosen like so many other volunteers are chosen in the services: if the number of "volunteers" needed to create vacancies did not materialize, the Secretary of the Navy was empowered to convene a board to select the required number of officers for retirement. This was the famous "plucking" board on which the younger officers placed their hopes for more rapid promotions.

Unfortunately, the actual result was below expectations: the new promotion rules were not immediately helpful.⁴⁹ In 1906, the youngest captain in the U.S. Navy was still some 20 years older than his British or European counterpart. The U.S. officer still spent, on the average, only about two years as a rear admiral before retiring, while in other navies officers enjoyed six or more years in flag rank. The men who had suffered from "the hump" and the Act of 5 August 1882 obtained little relief from the 1899 Naval Personnel Act; on the contrary, a good many of them suffered from it. In 1897, newly

elevated Captain McCalla, long an advocate of promotion law reform, sent Assistant Navy Secretary Theodore Roosevelt a memorandum protesting the proposed Personnel Bill. Under its terms McCalla and his classmates would be singled out for "plucking," whereas they were the only officers sufficiently "experienced" to assume leadership of the "new Navy." McCalla's protest was ignored; Roosevelt, born in 1858, probably identified with younger "progressives"--with the generation of Sims and Welles. In any event, McCalla, dissatisfied with the consideration now shown to junior officers, complained of the "growing tendency in our naval service to give exclusive praise to subordinates, and none to the captains." Captain Washington I. Chambers, another early advocate of promotion reform, took a different view after having been "plucked" himself in 1913 by the "star chamber" of officers assigned the task of retiring the deadwood from the ranks of captains. Retired Captain Chambers had only harsh words for "the evil tendency," the "insidious enemy," that had "crept into our organization"--"the selfish scramble for promotion." When Captain Rufus Johnston was "plucked," he received letters critical of the system of promotion by selection which, in the words of one of Johnston's "plucked" comrades, "had turned out just as I predicted it would." Even Admiral W. S. Sims was eventually "plucked" by the selection board system.⁵⁰

The real fault appeared to be an unwillingness to attack the root of the problem--promotion by seniority. No amount of "plucking" in the higher ranks could overcome the stagnation which also existed in the intermediate grades. To do that would, of course, mean "plucking" at all grades. It was not until the next period that the more perceptive Navy personnel planners realized the important insight that "plucking" at every rank is really an up-or-out system of promotion.

MANAGEMENT OF INDUSTRY

The Spanish-American War was the first war in which high levels of technology were used from the outset by the armed forces. The Navy was truly modern with armored vessels and rifled cannons capable of

sinking other modern ships. Rifled infantry arms enhanced accuracy, and their powder was smokeless, which made detection of the rifleman more difficult. Gatling guns were in general use, as were rifled cannons of deadly accuracy and destructive power. In short, the need of the armed forces for modern manufacturing facilities was now a reality. This made for a closer association of industry managers with the officer corps.

There was a stark difference between the officers of the armed forces and the personnel who ran industry just prior to the outbreak of the war. Whereas the military officer had little opportunity to handle any unit larger than a company--rarely did a post contain a battalion and even more seldom still did it ever contain a regiment--this was an era of almost unprecedented growth in American industry. In the few years just before the war (and just after), industry experienced "the greatest explosion of mergers."⁵¹ Therefore, industry managers were more proficient in large-scale operations. Several reasons stand out.

First, the Civil War had caused a vast social upheaval followed by an economic upheaval. In the South, particularly, the aftermath of the war was the destruction of an agricultural system which had depended on slave labor for 200 years. Livestock had been killed or requisitioned and rich farmland was in weeds. Replacement and renovation took from the end of the war until about 1880. By that time the physical assets had been replaced but values had not returned to their former levels.⁵² In the meantime, agriculture expanded in the northern states and was stimulated by rapid progress in the general uses of machinery, particularly during the harvesting process.⁵³

More important for the purposes of this study, however, was the increase in manufacturing in the South as a result of the general recognition that the agricultural life of the big plantation was essentially extinct. Southern manufacturing after the Civil War thus followed a much different course than its agriculture. There were marked increases in the number of manufacturing establishments

and one estimate shows an 80 percent increase over the number of establishments which existed in 1860 at the beginning of the war.⁵⁴ These establishments were not yet "big business" nor were they in need of a managerial class, since most of them were still family owned. But business was large by former standards.

Second, a considerable amount of the nation's energies were spent in building the West. This expansion was important for the creation of new markets and for the growth of railroads. For instance, southern railroads had been taken over by Union forces and rebuilt for their use. Thus, despite "Sherman's legendary destructiveness, the attrition through normal wear and tear, and the loss caused by the Confederate government pulling up railroad tracks to lay them elsewhere, one estimate indicates that the total railroad mileage in the South from 1860 to 1865 fell by only 32 miles."⁵⁵ Northern railroads were pushed across the continent to reach the Pacific Ocean. Thus, the railroads became truly big business as they expanded westward and their divisional structure began, as noted earlier, to require a group of professional managers.

Third, there was a favorable climate for creating corporations because big business requires big capital. Although incorporation laws which allowed any group to form a corporation and to engage in most lines of business were in effect in most states by the end of the Civil War, these laws were not wholly encouraging because of various restrictions imposed by some states. However, starting in 1880, a movement appeared in New Jersey and soon spread to other states to grant similar privileges to corporations, thus making corporations more desirable. Particularly important was the right to act as a holding company and to own the stock of other corporations for purposes of control.⁵⁶ This made concentration of control feasible and also made it easy to avoid restrictions or limitations imposed on corporations by other states.⁵⁷

The effect was to create more demand for corporations since that form was best fitted to secure the capital needed for big business; and, conversely, it became easier to secure capital and create big

business which could be incorporated. More important from our viewpoint, the growth of corporations ultimately established the need for a class of professional managers since now no one person owned the corporation and the death of no single individual could cause its dissolution. Someone who could "manage" the corporation and assure its continued existence was needed.

Nevertheless, the emphasis was on industrial, not management, growth.⁵⁸ Most small businesses were run by families and the managerial roles were routinely passed from father to son. This pattern was not entirely broken by the growth of corporations because corporations were growing by acquisitions resulting in either horizontal or vertical development. As long as the component firms (family owned) were run satisfactorily, little attention was paid to the necessity to preserve the life of the corporation by ensuring a supply of managers--growth was the order of the day.

...the new corporation often functioned for a time as a loose amalgam of divisions which retained much of their former autonomy...because the firm's new central office exercised little effective control and direction other than acting as a general forum in which price and output decisions were reached.⁵⁹

Fourth, the ease of incorporation led to an increase in their number. It was logical that experimentation would occur with ramifications of the corporate structure to achieve maximum gain in profit and control, and even to achieve monopoly. By the mid-1890s, the appearance and notoriety of various horizontal combinations in the form of trusts or holding companies had helped prepare the way for the rapid spread of such businesses. Once a few successful and widely publicized combinations had gotten underway, businessmen in many industries began to consider the possibility of duplicating in their own industries the pattern of Standard Oil, American Sugar Refining, and American Tobacco. In any sort of sudden, massive alteration in the organization of many businesses, the force of example is strong, and the new forms are "in the air" or faddish. Before a major consolidation movement could occur in the 1890s, it was essential for businessmen to have some successful examples before them. By the

mid-1890s, combination was "in the air." Even producers who were not necessarily unhappy with their situations found themselves thinking of mergers.⁶⁰

A fifth factor is that the period in question was one of turbulent labor relations which absorbed much of the time of the employers.⁶¹ Between the end of the war and the 1890s, labor became convinced that it must fight to make its demands for standards of pay and working conditions national in scope. Hence, a leading characteristic of the period was the establishment of trade unions to help in that fight. Some of these, like the Knights of St. Crispin, organized by the boot and shoe workers, were designed to protect jobs from the growing introduction of machines. Others, like the Molly Maguires in the Pennsylvania mining region, were terroristic, while still others, like those in the railroad brotherhoods, emphasized the benefit systems they wanted. There were numerous strikes which in several cases became so violent that federal troops were used to restore order.⁶²

Whatever the causes, by the time the Spanish-American War began there were sufficiently many "big businesses" in existence to ensure their active utilization during the war. Funding was not a problem because on 7 March 1898, a few weeks after the sinking of the Maine,⁶³ the Congress passed a \$50 million bill for "the national defense and each and every purpose connected therewith to be expended at the discretion of the President."⁶⁴ Later other funds came equally readily: "The Congress appropriated over \$130 million for the Quartermaster's Department alone."⁶⁵ The magnitude of the operation led to much cooperation between industry and the military.

Cooperation between industry and the military was most marked in the railroads. The railroads had been used extensively for the first time in the Civil War, but in the Spanish-American War the use was nationwide rather than sectional.

We have already noted that the railroads were the first of the large-scale industries to be organized other than as a family-managed enterprise. This effort had continued after the Civil War and the

railroad corporations with which the War Department dealt were organized and staffed for grand-scale endeavors. Moreover, their administrative organization was such that they could easily adapt to the smooth movement of large numbers of people and huge amounts of freight. Rail lines crisscrossed all parts of the nation, and the railroad companies had now perfected systems which allowed them to transfer cars from one railroad to another. In every respect it could be said of the railroads that "their services went far beyond mere business effort, and partook of the character of friendly, zealous, and interested aid in forwarding the government business."⁶⁶ During the war the railroads moved approximately 450,000 troops in reasonable comfort, without a serious accident, and "at rates for both freight and passengers far lower than those charged civilian shippers."⁶⁷

Though the war with Spain has been ridiculed in our history, its opening phases were no more chaotic than most of our wars. Consider the confusion of the early days of each of our wars and it becomes clear that the great difference in the Spanish-American War was that it was so successful that it never progressed beyond the opening phase and there was no opportunity to end up with the splendidly efficient armed forces which were the end products of our other wars. In part the remarkable success enjoyed was due to the weakness of the enemy and to the ability of our officers to adapt quickly, thanks to the professionalization of the armed forces which had taken place earlier.⁶⁸

AN OVERVIEW

A perceptive young man bent upon a military career would have found much to favor a military career during this period as well as some things to argue against it.

Some historians have treated the period between the end of the Civil War and the beginning of the Spanish-American War as one of almost unmitigated disaster for the armed forces. They called it the Dark Age because of the neglect on the part of the Congress and the general disinterest in the nation toward things military--except, of course, in the areas of the nation touched by the Indian Wars.

The prospective military officer might look at the period in another way: it was a period of professionalization. The services had been left to their own devices with minimum interference by the Congress. The Army was able, therefore, to establish the systems of schools which are unparalleled in other armed forces of the world. The only problem for General Sherman, the founder, was to ensure that he did not exceed the authorized budget and manpower ceilings. The Naval Academy was established in the same way.

This freedom of action meant that the Army was able to concentrate on producing highly trained officers who were capable of learning extremely fast in the confused conditions at the outbreak of the Spanish-American War. It is remarkable that a service which had not been able to assemble a regiment in one spot for almost 30 years proved itself capable of producing officers who overnight mobilized and equipped an Army of over a quarter of a million men.

The record is equally creditable for the Navy, which just a few years before the Spanish-American War could only sail Old Ironsides before a newly elected President as a demonstration of the naval might of the nation. Every nation in the world which had at least one armored cruiser could have defeated our obsolete ships in a matter of minutes. Yet under the prompting of able young officers who agitated and pushed for reforms, the "new Navy" was able to defeat one of the established naval powers of the day in two battles.

This record of producing the quality of officers needed by the nation's armed forces is impressive and should not go unnoticed in the common but to large degree erroneous notion that the Spanish-American War was more poorly handled than our other wars. The credit for this increase in the professionalization of our officer corps must be ascribed, in part, to the fact that when left to their own devices by the Congress and the nation, the armed forces had the capability for introspective analysis and the willpower to urge needed reforms.

There were real advances in personnel management. The introduction of forced retirement--done at different times in the Army and the Navy--was a powerful step in this direction. One must

remember that the passage of retirement legislation was for the sole reason of removing deadwood from both the Army and the Navy, not because retirement was considered an entitlement, as it is viewed today. It was not looked upon as a device to attract men into the officer corps; it was meant to force reluctant senior officers out of the service to make way for younger and more vigorous officers better capable of withstanding the rigors of combat.

Two other devices were equally effective quality control measures: the institution of efficiency reports in the Army and the requirement that officers take an examination for promotion in both the services. Neither idea worked out as well as intended because seniority and other factors made it difficult to separate the incapable. Nevertheless, the basic concepts were there.

The ability to raise the quantity of qualified officers required was somewhat uneven. For instance, the efforts to improve what was later to be the ROTC program were halting and in some ways half-hearted. Incredibly, records were not kept of who had graduated and who had not, although Cosmas notes that President McKinley selected 195 graduates of the land grant colleges as second lieutenants in the expanded regular Army.⁶⁹ Nevertheless, the absence of the records which should have been kept of the graduates of the 45 colleges with military programs precludes our knowing whether the quantity/quality issue was assisted by the program. Presumably it was, but we do not know.

The first step in the direction of removing the "two Army" struggle from politics was the Dick Bill, however deficient it might have been at the time because it did not mandate a federal volunteer force rather than a militia. It did establish that the militia would be assisted by the regular establishment. In addition, it mandated that the militia would be required to take certain training of at least 24 drills or target-practice periods a year, and to hold summer encampments of not less than five days in the field each year. Moreover, the Guard was to be inspected by regular officers and the regular Army was to detail officers to the states as instructors.

Although informal joint maneuvers had been held since the 1880s on a sporadic basis, now the Guard was to receive pay and subsistence when on joint maneuvers with the regulars. Finally, Guard officers were now eligible to attend Army schools at Fort Leavenworth or the Army War College and while students they were to receive pay and subsistence.

The perceptive young man might conclude that a military career was more promising now than at any other previous peacetime period. He would probably be inclined to believe that the Navy offered somewhat better opportunity because it was now recognized as a major instrument of national policy.

NOTES

1. Cosmas, op. cit., p. 5. The date was in August 1897.
2. Weigley, op. cit., p. 267, gives this number of posts as of 1869.
3. Cosmas, op. cit., p. 6.
4. Ganoe, op. cit., pp. 348-349.
5. Cosmas, op. cit., p. 6.
6. Ibid.
7. Ibid., p. 7. See also Huntington, pp. 236-238, for other steps.
8. The Navy had compulsory retirement but the Army did not, although the President could retire officers or officers could apply for retirement. See Chap. IV.
9. Ganoe, op. cit., passim, notes that the school had originally been established in 1824, was disbanded, reestablished in 1856, and again disbanded.
10. Ibid., pp. 355-369.
11. Cosmas, op. cit., p. 11.
12. Ibid., p. 150.

13. Weigley, op. cit., p. 291.
14. ROTCM 145-20, op. cit., p. 291.
15. Martha Derthick, "Militia Lobby in the Missile Age: The Politics of the National Guard," p. 193, establishes the founding date as 1879. The Derthick article is contained in Samuel P. Huntington (ed.), Changing Patterns of Military Politics, Free Press of Glencoe, Illinois, Chicago, 1962.
16. Similar efforts are not entirely dead today, as Derthick points out.
17. Ibid., p. 191.
18. Ibid., p. 190. The Gray Board Report recommended placing the Guard under federal control.
19. This thought runs theme-like through the journals of the day. It was to persist. See Cosmas, op. cit., pp. 6, 148, 149; Journal of the Military Service Institution, Vol. XL, March-April 1907, pp. 168, 337; the influence of politics upon promotions is clearly evident. See also Huntington, op. cit., p. 245.
20. Kreidberger, op. cit., p. 172.
21. See Cosmas, op. cit., Chap. 8, entitled "Sickness and Scandal," for an excellent account.
22. Dodge Report, op. cit., passim.
23. Ganoe, op. cit., p. 416.
24. Kreidberger, op. cit., p. 179, points out that after 1902 usually a third of the Army, and therefore of its officer corps, was on duty outside the United States. There is nothing in the secondary literature which reveals rotational policy for officers. A clue is contained in Richard O'Connor, Black Jack Pershing, Doubleday, New York, 1961. On p. 51 he says, "Captain Pershing arrived in the Philippines just as he turned forty," or in 1900. On p. 76 he says, "Congress passed the General Staff Act shortly before Captain Pershing's return to the United States," or 1903. The tour must, therefore, have been three years, the length of today's overseas tours when accompanied by family.
25. The first General Staff consisted of "one chief, two general officers, four colonels, six lieutenant colonels, and twelve majors. Twenty captains were also to be selected from the captains and lieutenants in the Army at large and to have the pay of a captain, mounted." Ganoe, op. cit., p. 418.
26. Weigley, op. cit., p. 322.

27. Ibid., pp. 321, 322, is the source for this and the next paragraph. The paragraphs are taken directly.

28. The direct instigator of these reforms was President Theodore Roosevelt himself. See Rear Admiral Lucius W. Johnson (MC), "When T. R. Streamlined the Officers," U.S. Naval Institute Proceedings, December 1952, pp. 1310-1313, for an amusing but informative account of the genesis of this program by Roosevelt and the devices of some of the older officers to avoid the spirit of the regulations. See also Ganoe, op. cit., p. 434.

29. In one of Oscar Wilde's plays of the period, an American lady bemoaned America's lack of curiosities and ruins and was told "Well, you have your manners and your Navy." Karsten, op. cit., p. 278.

30. This term is used to describe this period of the 1880s by all the historians I have read: Clark, op. cit., p. 409; Karsten, op. cit., Chap. 6; Paullin, op. cit., Chap. X; and Huntington, op. cit., passim.

31. Clark, op. cit., p. 407. See also Karsten, op. cit., p. 279.

32. Ibid.

33. Ibid.

34. Ibid., p. 408.

35. Ibid.

36. Ibid.

37. I am indebted to Harvey DeWeerd for this quotation.

38. Karsten, op. cit., p. 281. If the number of officers in each year group are plotted as a function of time, the curve will be relatively smooth. However, if one year group has an abnormal number of officers, the curve will have a "hump" in it for that year. European countries which maintained large standing armies in peacetime did not have the "hump" problem. However, they had problems of a political and social nature exemplified by the Dreyfus Affair in France.

39. Ibid., p. 284.

40. Ibid., p. 285, quotes an officer: "This curious legislative freak" was "the system of promotion which required the death or retirement of sixty-four commodores or 128 rear admirals to promote one ensign." The causative factor was a surplus of 115 senior officers over those authorized by the act. The act concerned not only personnel but also shipyards and other expenditures.

41. There were protests for all manner of things. For example, changes in physical standards caused color-blind officers to be unfit for duty and created hardships. See Report of Committee on Naval Affairs on Bill S.870, Retirement of Certain Naval Officers, 50th Congress, 2nd Session; Report No. 3957 and Report on Bill H.R. 5413, Retirement of Certain Naval Officers, 51st Congress, 1st Session, Report No. 478. Pay was a rallying point; Report of Committee on Naval Affairs on Bill S.882 to Equalize Pay of Naval Academy Graduates, 49th Congress, 1st Session, Report 720. The issue here was that line ensigns received less pay than staff officers having the same date of rank and same relative rank. The controversy was still alive in Petition of Naval Officers, Forwarded by the Secretary of the Navy, in Regard to Equal Pay of Officers of the Navy for Equal Rank, 51st Congress, 2nd Session, Ex. Doc. No. 145.

42. Karsten, op. cit., p. 289.

43. Report of the Phythian Board to the Secretary of the Navy, dated September 26, 1891, reprinted as Miscellaneous Document No. 58, 53rd Congress, 2nd Session, 24 February 1894. The Board was named after Captain R. L. Phythian, then the Superintendent of the Naval Academy. The origin of the term "plucking" is obscure.

44. Karsten, op. cit., pp. 356, 357; see also Paullin, op. cit., pp. 419-421.

45. Clark, op. cit., p. 461, notes that the Spanish-American War actually ended on 12 August 1898 with the signing of a protocol which suspended hostilities. The treaty of peace was signed in Paris on 10 December 1898.

46. Paullin, op. cit., p. 459.

47. Ibid., p. 460.

48. Ibid.

49. This paragraph has been taken with minor change from Karsten, op. cit., p. 360.

50. There were other problems with the Naval Act of 1899. The procedure of the "plucking" boards was cumbersome and needed correcting. See Letter of the Secretary of the Navy to Accompany Bill (S.1535) to Provide for the Examination of Certain Officers of the Navy and to Regulate Promotions Therein, 56th Congress, 1st Session, Senate, Document 38; also applying to the same bill in the same session is Report No. 148. Some officers received less pay under the new bill than under the previous act; see Letter from the Secretary of the Navy to Accompany Bill (S.3101) to Amend Section 13 of the Act "To Reorganize and Increase the Efficiency of the Personnel of the Navy and Marine Corps of the United States," 56th Congress, 1st

Session, Senate, Document 162, and Letter of the Secretary of the Navy to Accompany Bill (S.698) to Provide for the Examination of Certain Officers of the Navy, and to Regulate Promotions and Retirements Therein, 59th Congress, 1st Session, Senate, Document 12.

51. Porter, op. cit., p. 40.

52. Ralph Andreano (ed.), The Economic Impact of the Civil War, Schenkman Publishing Co., Cambridge, 1962, pp. 90-93, Tables I and II.

53. Wright, op. cit., p. 501.

54. Andreano, op. cit., p. 92.

55. Ibid., p. 97.

56. Wright, op. cit., p. 554.

57. Ibid. See also Destler, op. cit., p. 40, for the experimentation of the "robber barons" with various organizational types.

58. Harold C. Passer, "Development of Large-Scale Organizations," The Journal of Economic History, Vol. XII, No. 4, Fall 1952, pp. 378-395, does not make this point directly but supports it.

59. Passer, op. cit., pp. 43-71, gives an excellent description of these two processes as they were operated during the period.

60. This paragraph is taken almost directly from Porter, op. cit., p. 71.

61. See Wright, op. cit., Chapter XXXVI.

62. Ibid., Chap. XXXVI, pp. 610, 611. The great railroad strikes of 1877 and the strikes in the period from 1884-1887 were particularly violent. David S. Muzzey, History of the American People, Ginn & Co., New York, 1934, p. 456, cites 485 strikes in 1884, 645 in 1885, and 1411 in 1886. A total of 9861 factories and one-half million workers were involved. "A sinister element in the situation was the presence of European agitators with programs of social revolution and anarchy."

63. 15 February 1898.

64. Cosmas, op. cit., p. 73.

65. Ibid., p. 154.

66. Ibid., pp. 167-169.

67. Ibid.

68. James A. Huston, The Sinews of War: Army Logistics 1775-1953, Army Historical Series, Office of the Chief of Military History, United States Army, Washington, D.C., 1966. Chapter XVIII enlarges on this concept.

69. Cosmas, op. cit., p. 150.

VI. THE WORLD WAR I PERIOD

INTRODUCTION

The demobilization which followed the Spanish-American War was not as precipitate as that which had occurred after previous wars, basically because the nation had become an international power. By the terms of the peace treaty signed in Paris on 10 December 1898, Spain relinquished all claims over Cuba and ceded the island of Puerto Rico and other islands in the West Indies under Spanish sovereignty to the United States. In the Pacific, Spain ceded the Philippine archipelago and the island of Guam in the Marianas. In short, the United States was now a nation with a need for an "Army for empire"¹ and the requirement for a two-ocean Navy became increasingly clear.

Another reason for maintaining the Army and Navy at higher levels than after other wars was the increasing demand for forces to subdue the Philippine rebels led by Emilio Aguinaldo. In addition, other national powers began to test our resolve--England, Germany, and France dispatched fleets to Manila immediately after Admiral Dewey's victory, and there was a dangerous incident in which Dewey almost came to open hostilities with the German fleet.²

The war had revealed grave deficiencies in our methods for ensuring that the officer corps of the armed forces was of the high quality needed to conduct modern war. For instance, the old bureau system was hopelessly outmoded and had failed to recognize the necessity for industrial as well as personnel mobilization. Moreover, there was no method of centralized planning within the War Department because of the diffusion of authority between the Commanding General, the autonomous bureau chiefs, and the Secretary of War. Also unresolved were the issues of promotion and retirement which inhibited the attainment of high rank by an officer until he was too old to be of much service. Finally, major defects had been revealed in the militia system and in the nation's previous reliance upon the ability of the states to both supply men and to equip them.

Training standards in the militia thus raised were as varied as the ability of the officers was uneven.

Later in the period, other problems arose with both the quality and quantity of Army officers. The air service was scarcely noticed when it was created but it soon encountered problems of training and the provision of the necessary number of pilots--problems that remain today.

The Navy was somewhat more fortunate during the period. Early in the period the tremendous shipbuilding program created personnel problems because personnel planning failed to keep pace with building. Short-term solutions created "humps" and promotion was still slow despite the "plucking" boards. Finally, however, the Navy realized that a true steady-state condition in its officer corps required "plucking" at all ranks or an up-and-out system. The Act of 1916 gave them a true up-or-out system which assured, in theory, a more efficient use of the officer personnel.

The gathering storm of World War I already visible in the Agadir Crisis of 1911 finally brought all of these issues to the point where they had to be addressed. When the United States did enter the war, the nation was somewhat better prepared to cope with the problems of officering the largest army in its history to date. Unfortunately, the lessons learned and the remedial legislation which passed after the victory of 11 November 1918 were largely nullified by budgetary actions taken in the wake of the Great Depression.

THE MILITARY

The end of the Spanish-American War led to "the new Army"³ or "the Army's renaissance"⁴ and the return from the "splendid isolation"⁵ which had separated the Army from the people during the Indian Wars. The new Army had a General Staff (thanks to the aggressive leadership of Elihu Root) and an awareness of its importance in the turbulent era ahead. It was no surprise, therefore, that in the pre-war years of 1914-1917 the Army led a campaign to prepare the nation.

The effort to create a General Staff for the Army, an agency whose purpose was to improve all phases of the Army's management including personnel, was in a sense made more difficult by the existing personnel management system, or rather the lack of it. For instance, the ambiguous nature of the office of Commanding General led to conflict between Elihu Root, the Secretary of the Army, and Lieutenant General Nelson A. Miles, "one of the most difficult personalities who had ever held the rank of Commanding General."⁶ The conflict was ultimately resolved when Miles' presidential ambitions conflicted with those of Theodore Roosevelt. That conflict led to Miles' loss of authority and a bitter retirement when he reached the statutory age. The conflict with the bureaus was to last several years but at each step of the way Root won important points with the Congress, the totality of which was beneficial to the personnel management of the officer corps.

Miles was by no means the only difficulty. He was one of a group of officers who had become entrenched in Washington under the permanent detail system whereby officers were taken from the line and placed in permanent staff positions in the Washington bureaus. Root was particularly dissatisfied with the resulting separation between the line and the staff which made the latter ignorant and unmindful of the needs of the troops in the field. In a major innovation to increase the quality of performance by staff officers, he established the short detail system, whereby officers were taken from the line for short service on the staff and then returned to service with the troops. The opposition was disarmed by abolishing the old rule which gave an increase of rank and pay with each transfer to the staff, thus eliminating the desire and political pressure for staff assignments. The only permanent assignment under the reorganization was to the new position of Chief of Staff, which supplanted that of Commanding General. To eliminate an old source of friction, Root recommended that supply departments be placed under the control of the Chief of Staff, acting under the direction of the Secretary of War.

The change to the Chief of Staff concept and the abolition of the office of Commanding General had important implications in the quest to create better quality officers. In the first place, personnel management policy was no longer fragmented--it was centralized in the Chief of Staff. In the second place, the basis for present systems of promotion, education, and training was established, although total realization of all aspects of the management system was years in the future.

Root also advocated the introduction of the merit system for promotions in lieu of the existing flat rule of seniority, as well as other changes. To meet these needs, he proposed the establishment of an Army War College; rotating details of all officers below the rank of field officer to study at the College with provision for the continuance of the instruction by correspondence; and the inauguration of the short detail plan for service on the staff with regular return to service in line. He also noted the need for increasing the capacity of West Point in order to produce an adequate number of officers for the regular Army.

Root was not content merely to advocate reforms. He drafted an Army Reorganization Bill and sent copies of it to seven friendly editors, saying:

I hope you will help me all you can about the Army Reorganization Bill.... There are undoubtedly matters of detail in it which can be improved, but in its general features I am satisfied that it is right, and that it would be of great advantage. It is but one of the series of measures included in the general plan which I outlined in my annual report. It is designed to secure some reasonable opportunity for selection in line promotions, to secure flexibility in the staff, and break up the excessive bureaucratic tendency and to reorganize the artillery on modern lines.⁷

Root also worked for the furtherance of military education. He admitted that "practical qualities in a soldier are more important than a knowledge of theory" but "It is also true that, other things being equal, the officer who keeps his mind alert by intellectual exercise, and who systematically studies the reasons of action...will

be the stronger practical man and the better soldier."⁸ Root had in mind not only the continuance of the training which the graduates of West Point received at the Military Academy, but the training of the numerous officers who had been commissioned from the ranks, particularly as a result of service in the war with Spain and in the Philippines. With these aims in mind, schools were established at every military post of any size throughout the country; all junior officers at these posts were required to follow a certain prescribed course. The men who showed the greatest ability in these post schools were then to be sent to the special service schools for advanced training of officers for the artillery, engineers, cavalry, field artillery, and the medical corps.

The apex of this hierarchy of schools was the Army War College, established by a board of officers convened by Root in an order of 19 February 1900. The board was informed that:

The purpose of the department in establishing this College is to further the higher instruction of the Army, to develop and organize, in accordance with a coherent and unified system, the existing means of professional education and training, and to serve as a coordinating and authoritative agency through which all means of professional military information shall be at any time at the disposal of the War Department.

Root secured an appropriation from Congress of \$20,000 to support the War College; the board rendered its report on 21 October 1900; and the War College was definitely established by a general order of 27 November 1901. Root did not claim that the War College was novel: "It is a growth and not a new departure."⁹

Despite the active opposition of Miles and the bureaus, the Congress finally approved the General Staff, effective 15 August 1903. Root obtained the creation of the office of Chief of Staff and the abolition of the title of Commanding General. The General Staff, to assist the Chief, consisted of 44 officers, who were relieved of other duties. The supply departments were subordinate to the Chief of Staff who now "supervised" the line, the special staff, and the departments. The present structure of the Army is a modification over time of these initial organizational insights by Root and his genius in having them

approved. The personnel system benefited by being unified and no longer a divided responsibility between autonomous bureau chiefs and a Commanding General with no statutory responsibility.

In the face of the war in Europe, a need to increase the size of the regular Army became apparent to some, but the militia system still had many supporters. The resultant political struggle as to whether the Army was to be under national control or conform to the militia system was, in hindsight, predictable. In any case, the National Defense Act of 1916 "provided for an increase of the authorized strength of the regular Army to 175,000 over a five-year period ...expansible to 286,000"¹⁰ in time of war. More importantly from the standpoint of officer management, the act prescribed standards for Guard officers and established an Officers Reserve Corps and a Reserve Officers Training Corps.¹¹ The regulars were assured of the control of the Army in the future by a provision which limited the corps of reserve officers to grades no higher than major.¹²

The greatest weakness of the previous reserve officers training programs conducted under the Morrill Act was the almost inconceivable failure of the Army to take advantage of the graduates by assigning them to active duty training. This failure was in part responsible for an equally incredible failure to keep records of the names of successful graduates. Thus, except for the infrequent officer who applied for and received a regular commission, the graduates severed their connection with the Army upon graduation. Nobody in the Army or in the government knew where this potential source of trained officers could be located. Unless the individual himself volunteered his services, a valuable asset was wasted.

The extent of neglect of this valuable resource is indicated in a War College study of 1915 which noted that from 1905 to 1915 a total of 287,952 men had participated in the program and 44,629 had graduated but that only a few of those would be "trained officers" although "all will have pursued a course, both practical and theoretical, insuring a working knowledge of rudiments."¹³ However, "since 1912 the training has become more intensive, and 1,100 out of

15,323 have been recommended for commissions in the regular Army and volunteer forces." The report further noted that previous to 1912 the graduates and participants have "no doubt, lost all touch with things military, and have consequently forgotten what little they learned before their graduation."¹⁴ The report concluded that indifference of the authorities, lack of funds, excusing students from military training because of athletics, failure to allot proper time to the military department, and placing agriculture and mechanical arts in competition with the program contributed to this sad state of affairs.

Attempts had been made since 1912 to correct the deficiencies noted in the 1915 study but results were far short of what the War Department wanted. However, definitive steps were taken in 1916. Recommendations made in the 1915 study were written into the National Defense Act of 1916 and resulted in the establishment of both the Officers Reserve Corps and the Reserve Officers Training Corps (ROTC). There was some delay in the appropriations necessary for the effective implementation of the provisions of the 1916 act, with the result that transition of the schools from the old system under the Morrill Act to the new National Defense Act had barely begun before World War I was a reality. Nevertheless, in the period between 1916 and 1919, senior ROTC units were established in 144 colleges, with an additional 18 junior units elsewhere. Thus by the end of 1919 there were 144 senior ROTC and 30 junior ROTC units. The full fruits of this system were, of course, to be felt in World War II, when the farsighted provisions of the Act of 1916 assured the nation of a large number of trained reserve officers. Though, in the event, more officers were needed (as they always are in war) the system can be said to have worked exceedingly well.

One other important innovation to provide the nation with more trained officers took place in the summer of 1913. In what was to be the forerunner of the Officer Candidate School (OCS), 222 students paid their own expenses, including transportation, clothing, and subsistence, to attend summer camps held at Gettysburg, Pennsylvania, and Monterey, California. At these camps they received instruction in

drill, tactics, rifle marksmanship, sanitation, and the care of troops.

The two camps were so successful that they were expanded to four in 1914, all at Plattsburg, New York. In 1915 the program was expanded and again held for young businessmen. A measure of the importance attached to the camps by the nation at large is reflected in the fact that despite the lack of War Department funding, the camps were able to continue on money donated by men like Bernard Baruch. Finally, funds were appropriated in 1916 and over 12,000 men attended the camps held at Plattsburg.¹⁵

Progress in solving the problems associated with the supply of trained officers was in the right direction even if it was painfully slow and, at times, mysterious (the Acting Chief of Staff in 1917 was chosen for his skill with American Indian languages!).¹⁶

There arose another important concern for the officer corps. Until this time, "the whole body of commentators on American military policy...had strangely neglected the subject of economic mobilization."¹⁷ Now, the act prescribed that "the Secretary of War was to make a survey of all industries concerned with the manufacture of arms and ammunition" and it "created a Council of National Defense with an advisory commission [presumably of industrialists] to consider especially the problems of economic mobilization." That may well have been the birth of the military-industrial complex as we understand the term today.

When the United States actually declared war, the economic mobilization revealed the complexity of modern war in terms of the total resources needed. It also revealed deficiencies in officer personnel management. "By the end of 1917 the War Department was dangerously close to complete collapse in the field of logistics. The reasons for this were many, but chief among them were faulty organization and the failure to realize the relationship between industrial mobilization and military mobilization."¹⁸ In other words, personnel managers had not foreseen the need for officers with the needed specialized knowledge. In essence, the Army believed the

officer was a fighter and the need for specialists was overlooked or obscured. Sad to say, this same attitude exists today, but it has been tempered by the pragmatic and obvious need for specialists of various types. Because the specialist is not a combat officer, there is reluctance to promote him to higher grades. The specialist versus generalist argument creates a personnel problem. Is the specialist, who is essentially a manager, entitled to high rank in an organization which sees its primary mission as fighting? Though the Industrial College established in 1924 provided officers trained in the specialty, it did not answer the question of the management of the officer specialist.

Another important personnel problem was solved because "the Army and War Department broke tradition and gave no commissions to leaders of fighting men on the strength of political qualifications alone...the upper ranks of the Army went to career officers...."¹⁹ This important precedent is followed today and the system for appointing officers is almost free of politics. The other ranks are filled by promotion from within and this system is also almost devoid of political pressure on the regular Army.

Despite these steps forward, it appeared that personnel management of officers was a lesser concern as shown by the August 1918 organization of the War Department General Staff. It had four principal directors--intelligence, plans, operations, and purchasing--but personnel was a sub-branch of the operations division. On the organization chart its function was listed as "promotion, transfer, and assignment of commissioned officers;" its second function was "conscientious objectors."²⁰

The organization chart also showed a Director of Military Aeronautics. This was the Air Service, the parent of the United States Air Force, and was the natural descendant of the Aeronautical Division which was established in the Office of the Chief Signal Officer to have charge of all matters pertaining to "military ballooning, air machines, and affiliated subjects."²¹ That office contracted for its first flying machine on 10 February 1908. The

machine crashed during its tests on 3 to 17 September and its pilot was killed;²² the Army postponed acceptance of another aircraft until 2 August 1909. By the time the United States entered World War I, the Aviation Section of the Signal Corps consisted of 35 pilots and 55 airplanes organized into seven tactical squadrons.²³ When World War I ended there were 767 pilots, 481 observers, 23 gunners, and 740 airplanes.²⁴

The problem of providing the quantity of volunteers to be pilots was minor because the glamor of flying attracted numerous young men. The real problem was the quality because it took a long time to train a pilot to both fly and fight. Any deviation from quality would be immediately measurable in casualties and the destruction of a costly aircraft--a topic even more important today with multimillion dollar aircraft.

At the end of World War I, management of the officer corps was mixed. New tools were in use--forced retirement, examination for promotion, and comprehensive schooling. The need for specialists was perceived, the sliding-scale concept existed, and the militia problem and the two officer corps it produced was recognized as a personnel management problem. To help solve all these problems, the Army now had a General Staff.

In the Navy, the Spanish-American War period had been one of tremendous ferment and dissatisfaction among the younger officers who had won a victory by the institution of the "plucking" boards. However, the new promotion rules were not up to the expectations of the younger officers and paradoxically not too popular with them. The root of the problem seemed to be a changing personnel strength which waxed and waned with the Congressional mood and which led, in turn, to piecemeal measures for solution.

Theodore Roosevelt became President in 1901 when McKinley was assassinated and immediately undertook a program to convince the Congress of the need for a large and modern Navy. The results of this drive were impressive. Within four years, Congress had authorized 10 battleships, four armored cruisers, and seventeen other vessels of

different classes.²⁵ By the time Roosevelt announced a breathing spell in 1905, he estimated that the 28 battleships and 12 armored cruisers, now approved, placed the United States second only to France and Great Britain.²⁶

This tremendous building program was not without short-term problems. There was an acute shortage of officers and it was impossible to keep the ships manned.²⁷ In 1902 Roosevelt declared publicly that the Navy was facing an alarming shortage of officers²⁸ and had only half those needed to man the ships under construction. This led to demands to promote enlisted men, but there was a shortage of qualified enlisted personnel as well as social problems.²⁹ Another step was taken but was not really a solution: the size of the incoming classes at Annapolis was doubled for the years 1903-1913 by the Act of 3 March 1903.³⁰ The effect, however, was to introduce another "hump" at a later date and to make steady-state personnel management difficult.

Unhappily, promotions still remained slow because seniority³¹ was still the legal method of promotion. The system of "plucking" boards "was a brutal measure as it pilloried before the public those selected out."³² Moreover, since promotions piled up in the lower ranks as well, the only solution was "plucking" at every rank or else promotion by selection coupled with the up-or-out concept. This latter system was finally introduced in 1916. The Act of 29 August 1916 provided that

Hereafter all promotions to the grades of commander, captain, and rear admiral of the line of the Navy, including the promotion of those captains, commanders, and lieutenant commanders who are, or may be, carried on the Navy list as additional to the number of such grades, shall be by selection only from the next lower respective grade upon the recommendation of a board of naval officers....³³

With modifications this is the system still used by the Navy (and became the system used by the Army and the Air Force after the Personnel Act of 1947). The effect was to provide for a more even flow of promotions and to avoid some of the trauma associated with the "plucking" boards. However, in another long-term personnel

management policy the act provided that "on and after June 13, 1920, no captain, commander, or lieutenant commander shall be promoted unless he has had not less than two years actual sea service on sea-going ships in the grade in which serving...."³⁴ This was disastrous for reserve officers because it denied them promotion and assured that the fleet would be controlled by the regulars in any future war. One cannot avoid the speculation that this was deliberately encouraged for just that purpose by the regular establishment and that the Congress had knowingly entered into the scheme. Finally, the law established retirement at 64 instead of 62 years of age.

The militia problem, as noted earlier, had never been a problem for the Navy in the same sense it had for the Army. There had been limited use of naval militia in the Civil War and in the Spanish-American War. However, the militia had been little more than a training ground for wartime replacements for the fleet. Naval militia units had rarely been used as such, in contrast to the Army where the majority of units were militia.³⁵

As more and more ships were added to the fleet, the Congress turned its attention to the need for additional officers to back up the fleet in case of war. Various alternatives were recommended, including additional naval academies. However, the choice of the Navy and the Congress was a national naval reserve formalized by legislation in 1900.³⁶

This legislation contained the seeds of future personnel management problems. The reserve was clearly subordinate to the regular establishment. Moreover, tenure and promotion opportunities were difficult for reserve officers to obtain and were made increasingly more restrictive. As noted above, World War I legislation prevented reserve officers from rising above the rank of lieutenant commander in peacetime which, of course, ensured that the regulars would be in total command of any wartime fleet. Other problems were created by the Act of 4 June 1920, which encouraged the 1200 best reserve officers to become regulars but reserve promotions

were halted. In September 1921, 25,000 reserve officers were dropped from the rolls and reserve officer morale sank to low levels. In 1922, a group of "Young Turk" reservists formed the Naval Reserve Officers Association (NROA) and by 1924 were able to achieve long overdue promotions for 448 reserve officers. The NROA persuaded Congress to create the Naval ROTC in 1925 and by 1928 the reserve officers corps had become reasonably integrated with the regulars.³⁷

INDUSTRY

There is an important relationship between personnel planning and management and the planning needed for an entire war effort. There are two points here. First, personnel management should provide an officer corps able to function in the world in which it will find itself at some indefinite date in the future. This means that the personnel management system must somehow build into the training and development process a mechanism for establishing a "corps memory." The second point is that large major wars involve the whole nation, thus requiring close cooperation between industry and the armed forces. Both elements need trained officer/managers in large numbers to make this necessary cooperative effort work.

The Spanish-American War ended so quickly that the lessons of the war in some of the most important policy and planning areas were overlooked and forgotten. Specifically, our effort had suffered from a too rapid mobilization of personnel and a too slow mobilization of industrial plants needed to support the war. This was most true in Army matters because, of course, it was realized that the building of modern warships required time and they could not be constructed the day after war was declared.

When Assistant Secretary of War Henry Breckenridge resigned in 1916 in protest against what he thought were inadequate measures to prepare the nation for war,³⁸ he did not mention industrial preparedness in the book which he published to explain his reasons for resignation. Indeed, the General Staff of the Army went further and in a study published in 1915 warned that there was a tendency to

exaggerate the importance of materiel in modern war and to underrate the importance of personnel. The study concluded that the side with the largest body of trained men and officers would win. In short, the General Staff ignored the hard truth that it takes longer in some cases to prepare the materiel than to train the personnel who will use it.³⁹

The President was equally shortsighted. As an example, the Secretary of War, summoned by the President, found him "trembling and white with passion" because a newspaper had reported that "the General Staff was preparing plans for the eventuality of war with Germany." If the report were true, the President wanted to relieve every officer on the General Staff.⁴⁰

The effect of this neglect was that by the year 1917 the industrial preparations for the Army were in shambles and the government turned to industrialists for help. These men were of great assistance in mobilizing the industrial resources of the nation but like the services they, too, had not learned from the previous war that it was necessary that their managers (like officers) be trained. Prior to World War I one could

...ransack the literature of industrial management written ten years ago and...not find the phrase "employment management" used or the work of the personnel or employment supervisor mentioned. No college or university school of business training of that day dealt with the problem.⁴¹

Now managers found themselves plunged into circumstances demanding immediate adaptation by both the rank and file and managers. An important aspect of the crisis for which managers were unprepared was the rapid shift in the labor market from excess supply to excess demand. Young men were leaving for military service, drawing down the available supply of labor, and those workers remaining on the home front were shifted quickly to war industries, aggravating the problem of labor turnover. The government acted quickly with the inauguration of programs designed to force improvement in management to reduce turnover and promote more effective employment practices. These conditions constituted the trial by fire that matured industry's managers at a greatly accelerated rate and increased the numbers of those engaged in the managerial function.

Specifically, the war forced managers to react in three facets of the personnel area: (1) training, (2) employee relations, and (3) employment. The training of both managers and operative employees was deficient. Many managers were exposed for the first time to formal training in employment management via government training programs. For those managers who had not been influenced by the mainstream of management theory, the war was an apprenticeship in scientific management, achieved through constant association with other, more knowledgeable businessmen in government agencies and war industries. Labor shortages forced management to develop new training concepts for employees, such as vestibule training (forerunner of modern training simulations), accelerated apprenticeship programs, and specialized training for semi-skilled occupations. It undoubtedly also forced intensive on-the-job training for those suddenly thrust into managerial positions.

The war affected employee relations by causing management to take its first look beneath the surface of human behavior, even though the initial motivation was the reduction of turnover. Employee attitudes were recognized as important factors in the effectiveness of personnel work. Willy-nilly, managers were being forced to come to grips with the intractable problems attendant to big business.

This period also saw the emergence of a literature on the management of managers and the personnel problems there encountered. Gowan's book in 1918⁴² predicted that World War I would accelerate a tendency to large-scale production and that the industrial expansion following the war would be undertaken by corporations considerably larger than had been witnessed before that war. Moreover, Gowan's investigation led him to conclude that the limitations of large-scale enterprise were usually a matter of its own organization and its choice of managers. He further concluded that a corporation which spent time in training its managers would save money if it could produce managers who had large asset values to the corporation.⁴³

Gowan accidentally gives an interesting clue to lateral entry and to executive mobility of the day when he says he had talked to a

medical director whose firm had no system of medical examinations for new people coming into the firm. The medical director said, "If a new executive were to be appointed from outside our organization, naturally his physical condition would be considered. As a matter of fact, however, all our executives have been developed from within the corporation." Although the company was not identified it may be assumed to be a large company since the companies contacted in the Gowan study were those like Eastman Kodak, General Electric, B. F. Goodrich, and National Cash Register.⁴⁴

Immediately after World War I, the production boom continued for a short period, but by the spring of 1921, there was extensive unemployment and numerous business failures. The resultant labor surplus stifled the personnel concerns that had arisen during World War I and they were ignored or dropped by industry. There were many reasons for this: "Few colleges were prepared to train in this area. Many personnel executives had failed to perform the most basic task of personnel administration; they had concentrated their efforts on employee activities rather than on management of employee relationships." In addition, managers in the personnel field had aroused the resentment and criticism of production and managerial staffs by extending their activities into areas unjustified by the objectives of the personnel management system.⁴⁵

Nevertheless, the growth of industry during the 1920s required and resulted in a change in industrial leadership practices. Executives needed broader knowledge and training to administer these expanding functions. The coordination of line executives and staff specialists was emphasized; and the conference was increasingly used for coordination. Consultation, persuasion, and inspiration increasingly replaced orders given by the upper echelon of management. "It is the man who can lead rather than domineer who is now chiefly desired in executive positions."⁴⁶

The necessity for these changes had been foreshadowed in the literature at the turn of the century but little attention was paid to the warnings because of the external visibility of "big" growth and

"big" profits. Nevertheless, management was not systematic and there was a "growth of internal disorder, confusion, and waste."⁴⁷ The causes were a breakdown in managerial coordination on a horizontal level (as products flowed from one process to another) and on a vertical level (between various levels of management). Simply put, "the problem was a gradual breakdown of the integration of the work flow at the lower levels of a company and a concordant deterioration in the ability of top executives to control work lower in the company hierarchy."⁴⁸ The root of the trouble, of course, was that managers had not themselves been trained to recognize the problem; management had not properly directed its own managers to ensure adequate training for those in the management hierarchy.

Another significant change was that ownership was increasingly diffused among a group of stockholders who through the directors held the managers of the company responsible for its financial results. As a result, managers began to regard themselves as representatives not only of stockholders but also of labor and the public. Nevertheless, there were few industrial organizations which had policies that definitely placed upon subordinate executives obligation for leadership and human development. There were similarly but few examples of emphasis upon the importance of training subordinate managers as a managerial function in itself.⁴⁹

One dramatic personnel management tool was introduced into industry from its experience with the Army. Prior to World War I, the policies for deciding who should or who should not be hired as a manager were almost mystical and arcane. The use of phrenology and physiognomy were common, as shown by this typical advertisement of 11 October 1917:

Wanted a first class man with experience for permanent position on the staff of Vice President, to shape and direct the advertising policy of a trunk line railroad. To save time and trouble to both applicant and employer, kindly send in photographs--one full length, one exact profile view (bust), and one front view (bust), full face holding hands close in front of the body, one palm outward and the other hand palm inward. Call for recommendation and personnel interview will come later.⁵⁰

The war, however, introduced a new and more scientific system. The Committee on Classification of Personnel in the Army virtually wrote the entire introduction to personnel appraisal and psychometrics in industry with its development of psychological tests and rating systems. Given the success of these tests in the classification of draftees, the testing concept was adopted by industry after the war and established the precedent for the testing systems used today by firms in the selection of their managerial, as well as other personnel.⁵¹

AN OVERVIEW

A young man contemplating a military career after World War II would have much that was new to consider. Warfare was now total, and the armed forces understood the need for personnel management.

World War I confirmed what had only been hinted at in the experience of the Spanish-American War: the personnel management process, however important it was in the overall view of military power, could not be divorced from the process of equipping the military forces. The rapid victory of the Spanish-American War obscured the fact that the mobilization of men for the Army had taken place faster than mobilization of materiel. The same lesson was repeated for the Navy to a lesser extent as it began to expand after the Spanish-American War--the rapid increase in the number of ships was not matched by a corresponding increase in the numbers of trained officers and men to man them. For the Navy, the materiel had come faster than the personnel, in a switch from the problem faced by the Army.

World War I was a repeat of history in the Army--large numbers of men were called to active duty under pressure from our allies, but the equipment for them simply was too long in coming. Most of our artillery was supplied by the French; and our own machine gun, the Browning, did not reach the front until September of 1918. Even then the quantities were so small that they did not affect the outcome of any of the major battles which raged that year. Unknown to our

planners was the fact that it took an artillery shell one year to pass from the initial production stage to the guns at the front.

Moreover, there was no method for estimating the quantity of shells required, an intolerable situation in view of the British experiences at the Somme and the lavish use of artillery at Verdun by the French and Germans.

Our failure to foresee that military personnel policies and materiel procurement policies needed to move in tandem resulted in the virtual collapse of the logistics system in 1917. It was then that the government in desperation turned to industry for help.

Industry, however, had neglected some aspects of its own personnel management. Though remarkable progress was made in mobilizing our industrial production, it was also the case that there was a dearth of managers in industry simply because there was no mechanism in industry to ensure the constant training of middle and high-level managers except by trial and error in the market. In effect, a man either made it or he did not and industry moved on in the belief that there would always be enough good men to move into the higher level positions. The war, with its gigantic industrial demands and the consequent need for more managers, proved the fallacy of this system and crash management courses were provided by the government to meet the unexpected needs.

Industry and the services learned nothing from each other in the period between the Spanish-American War and the beginning of World War I. Yet industry could have learned much because the services had pioneered many of the personnel management devices which would later be adopted, perhaps in modified form to meet the needs of individual corporations.

In retrospect, the catalog of achievements in the personnel field is significant. For instance, major steps had been taken to improve both the quantity and quality of officer personnel. The Army had built a remarkably complete educational system which included branch schools (infantry, artillery, engineers) to teach weaponry techniques. By the time World War I began, there was a school for each of the

major branches. There was a staff school to train the equivalent of middle management in industry--the staff college at Fort Leavenworth. Finally, the Army War College was the apex of the system. The Navy had a similar system.

Other equally important steps had been taken to improve the quality of the citizen officer. In a halting manner, the forerunner of the ROTC had produced men who were certainly better trained than militia officers of earlier wars. Of course, there were errors, such as the incredible fact that graduates of the program were lost, in effect, because no record was kept of them and they were not obliged to join some form of reserve formation. Finally, the Act of 1916 formalized the program and it became the ROTC program as we know it today. Other similar and important steps were the Plattsburg camps, the legislation making it possible to federalize the National Guard, and the subsequent imposition of standards of training. Finally, the OCS concept was born.

The perceptive young man who was considering a military career at the end of World War I might well believe that a military career had more to offer than at any time in the past. He would see, however dimly, that the future was not as secure as the euphoria of the day might have one believe. War on an international scale was, sadly, just beginning instead of ending. The young man might conclude with a heavy heart that it would be better to be an officer and attempt to prepare the armed forces for the future.

NOTES

1. The title of Cosmas' excellent book about the Spanish-American War and the role played by the Army.
2. Clark, op. cit., p. 463, gives more details.
3. Weigley, op. cit., p. 313.
4. Ganoe, op. cit., pp. 355, 397. Ganoe breaks the renaissance into two phases--the first before the war, the second after the war.
5. Huntington, op. cit., p. 283.

6. Philip C. Jessup, Elihu Root, Dodd, Mead & Company, New York, 1938, p. 243. The remaining paragraphs about the establishment of the General Staff draw heavily upon Jessup.

7. Jessup, op. cit., p. 254.

8. Ibid., p. 258.

9. Ibid., p. 259.

10. Weigley, op. cit., p. 348.

11. Ibid., p. 348. See Kreidberg, op. cit., p. 208, for the exact wording of Section 40 which established ROTC. Additional details are given in Ganoe, op. cit., pp. 456-459.

12. Spaulding, op. cit., p. 408.

13. Kreidberg, op. cit., p. 207. Kreidberg cites the War College study as Study on Educational Institutions Giving Military Training as a Source for a Supply of Officers for a National Army, November 1915, prepared as a supplement to the Statement of a Proper Military Policy for the United States, WCD9053-121, records of the War Department General Staff, National Archives, Washington, D.C.

14. Ibid., p. 208.

15. The camps were the idea of Major General Leonard Wood, then in command of the Department of the East. Later when he became Chief of Staff, they were part of a preparedness movement led by the Republicans (with his support) in opposition to President Wilson's call on America to stay aloof from the European war. See Weigley, op. cit., pp. 342-344, for the politics involved.

16. I am indebted to Harvey DeWeerd for this interesting fact.

17. Weigley, op. cit., p. 349.

18. Kreidberg, op. cit., p. 310.

19. Weigley, op. cit., p. 373.

20. Kreidberg, op. cit., chart opposite p. 292.

21. Wm. P. Vogel, Jr. (ed.), The Air Force Blue Book, 1961, Vol. II, Military Publishing Institute, New York, 1960, p. 349.

22. Ibid.; the pilot was Lieutenant T. E. Selfridge.

23. Ibid., p. 351.

24. Ibid., p. 352.

25. Gordon B. Turner (ed.), A History of Military Affairs Since the Eighteenth Century, Harcourt Brace, New York, 1956, p. 317. See also Albert C. Stillson, "Military Policy Without Political Guidance: Theodore Roosevelt's Navy," Military Affairs, Vol. XXV, No. 1, Spring 1961, pp. 18-31. Particularly, see p. 24 where the program recommended to Roosevelt by the General Board of the Navy headed by Admiral Dewey was 48 battleships not "from any sentimental reasons for the number of states as to numbers...but from a calm, logical review of the policies and aims of the nation...." Battleships were, of course, named after states.

26. Turner, op. cit., p. 318.

27. Ibid., p. 319.

28. Commander Roy C. Smith, Personnel and Promotion Reduced to its Simplest Terms, U.S. Naval Institute, Annapolis, Md., 1906, pp. 824, 825, gives the shortages as 2068 line officers in 1901, 2237 in 1902, and 2701 in 1904.

29. Park Benjamin, "Naval Promotion from the Ranks," Independent, Vol. 53, No. 2734, 25 April 1901, pp. 945-948. The problem was "the social gap" which prevented enlisted men from being officers and gentlemen. Also by the same author, "How the Need for Naval Officers Should be Met," Independent, Vol. 54, No. 2817, 27 November 1902, p. 2805.

30. Smith, op. cit., p. 803.

31. Ibid., passim.

32. Admiral William S. Sims, "Promotion by Selection," U.S. Naval Institute Proceedings, June 1934, p. 769.

33. The quote is from the act itself. U.S. Laws and Statutes, Sixty-fourth Congress, Session I, Chap. 417, 1916, p. 578.

34. Ibid., p. 579.

35. Karsten, op. cit., p. 361.

36. Ibid.

37. The previous paragraph is based upon Karsten, op. cit., pp. 360-362.

38. Huntington, op. cit., p. 144, gives an interesting insight into President Wilson's thinking on this point.

39. Huston, op. cit., pp. 308-310, has a more extensive discussion.

40. Huntington, op. cit., p. 140.

41. Milton, op. cit., p. '59.

42. S. B. Gowan, The Selection and Training of the Business Executive, Macmillan, New York, 1918, is a forerunner in the field. I have been unable to find an earlier book that stresses the necessity to train managers.

43. Gowan discusses this issue in Chap. 2. In a footnote on p. 16, he cites "the special bonus of \$450,000 in bonds paid to L. F. Loree, to induce him to relinquish after ten months service a five-year contract under which he was to receive a salary of \$75,000 per annum and in addition was to be paid a bonus of \$500,000 at the expiration of the contract. This apparently is a case where an executive became a liability to be got rid of rather than an asset to be trained."

44. Ibid., p. 87.

45. Milton, op. cit., p. 101.

46. Ibid., p. 110.

47. Baughman, op. cit., p. 56.

48. Ibid., p. 57.

49. C. C. Ling, The Management of Personnel Relations, History, and Origins, Richard D. Irwin, Inc., Homewood, Ill., 1965, pp. 336, 337.

50. Gowan, op. cit., p. 61. Gowan does not advocate the use of these pseudo-sciences; he denounces them. The mere fact that he takes several pages to discuss the uselessness of these false sciences is an indication of their prevalence.

51. Ling, op. cit., p. 336.

VII. THE WORLD WAR II PERIOD AND AFTER

INTRODUCTION

After World War I the United States, as it had done after each war, rapidly demobilized its armed forces. The laws which had authorized the World War I forces entitled nearly all who had served an early discharge.¹ Therefore, by the end of 1919 the Army went from 2,395,742 officers and enlisted men to 204,292. Officer strength alone went from 130,485 to 18,999. The Navy went from a peak of 448,606 officers and enlisted men to 121,845. Officer strength alone went from 23,631 to 10,642.²

The rapid demobilization of the armed forces had an adverse effect on industry, which in turn markedly affected actions taken to improve the armed forces. With today's knowledge, the chain of events might have been foreseen but in 1920 it was not. Briefly, the readjustment chain was this: the artificial production boom of the war continued into 1920; by late 1920 it had reached its peak; and by spring 1921 there were numerous business failures.³ The rapid demobilization of the armed forces coupled with business failures resulted in an oversupply of labor and, in turn, in extensive unemployment. A casualty was the new interest in personnel management that had arisen in World War I largely because of a labor shortage. Now in a surplus labor situation the advances which had been made were forgotten and ignored.⁴

Concern with productivity, so important to the war effort, led to some useful insights for both industry and the armed forces. These insights came from a series of remarkable experiments, conducted by the Western Electric Company,⁵ into factors affecting worker productivity. Though the emphasis was on the productivity of the rank and file and not on the manager and the problems associated with his productivity and welfare, the result may be applied to increasing the productivity of any identifiable group whether it is rank and file, managerial, civilian, or military.

There were also ~~some~~ positive legislative acts designed to sharpen personnel management in the armed services. First, the services were authorized larger forces than in any other peacetime period. Second, the Act of 29 August 1922⁶ mandated uniform pay scales and recognized what World War I had hinted at and World War II proved: the armed forces were an entity and officers of equal rank and responsibility demanded equal treatment. Third, as noted earlier, the Navy in the Act of 1916 received authority for and used an up-or-out system of promotion.⁷

On the negative side of the ledger, the influx of officers to bring the services to the higher authorized peacetime strengths created a new "hump" which had a stifling effect on promotions. The effect was felt particularly in the Army where promotion was still by seniority and where the class "B" boards created by the Act of 1920 did not create enough vacancies to speed up promotion, as did the Navy's up-or-out system.

Whatever progress there had been for industry and the armed forces came to a traumatic halt with the Great Depression, which began on 29 October 1929 with a panic on Wall Street. Thereafter the social and economic upheaval in the wake of the resultant massive unemployment dominated the life of the nation. In dollar terms, much of the growth experienced in the Roaring Twenties simply disappeared. For instance, by July 1932 "some \$74 billion or five-sixths of the September 1927 total [of the stock market] had vanished in thin air";⁸ and, worldwide, "the manufacturing output of the chief industrial nations declined between 30 and 50 percent."⁹

In the armed forces, draconian measures had already been taken. During the 1921 Depression, Army strength fell from 230,725 officers and enlisted men to 133,243 and the Navy fell from 132,827 officers and enlisted men to 94,094.¹⁰ During the same period, about 1000 Army officers were eliminated. In addition, Congressional actions required that another 800 officers be demoted to their next lower grade.¹¹ No effort was made to restore these cuts and after the Great Depression the strength of the services stayed relatively

constant until 1935, when World War II became increasingly more likely.

THE ARMY AND THE ARMY AIR SERVICE

A major result of World War I was the National Defense Act of 1920. The act legislated the Army of the United States, which consisted of the regular Army, the National Guard when called into service, the Officers Reserve Corps, and the Enlisted Reserve Corps. Except in time of war, the total regular force was not to exceed 280,000 officers and men. The Army was organized into brigades, divisions, and Army corps and such other units as were necessary for the national defense. The officers of the combatant arms of the regular Army were increased to 16,635 to fill the vacancies created by those who had served between 6 April 1917 and the passage of the act. Officers were eligible for promotion according to length of commissioned service and were promoted on that basis. This legislation eliminated the disparity of promotions between the different arms of the service, which was due entirely to legislative increase of a particular branch. Nevertheless, it was still a promotion by seniority system and advancement was at a snail's pace. In Eisenhower's words, promotion went "in lockstep." To keep the standard of the officer personnel up to a high grade, the elimination of the incompetent was inaugurated. A board of officers met each year to place all the officers of the Army into two classes, "A" and "B." Officers in Class "B" were subject to elimination.

The Act of 1920 was supposed to unite the Army with the people. However, two events intervened which had an important impact on the Army as a whole and on its ability to manage its officers. The first was the growth of pacificism and the second was the Great Depression.

Pacifism led to a wave of budget reductions in the Congress, and in June of 1922 "the Congress without hindrance by the mass of the people...reduced the Army to 175,000 officers and men...all promotions were to be stopped until January 1, 1923. Altogether 1,000 officers were to be eliminated before that time."¹²

The Depression led to further stringent budget cuts whose substantive effect was to slow promotions even more, to eliminate maneuvers and command post exercises, and to severely curtail the efficiency of the Reserve Corps and National Guard because these units "held a high percentage of officers who could not have field training each year because of lack of funds."¹³

A major innovation in the service picture during the World War II period was that the nation came to realize the potential of air power. One result was the decision to increase drastically the size of the United States Army Air Service. On 2 July 1926, the Congress authorized the expansion of the Air Service to 1800 planes, 1650 officers, and 15,000 enlisted men.¹⁴ The increase was to occur over a five-year period. However, this ambitious program also felt the effects of the retrenchment which came on the heels of the Great Depression. When the Depression finally exploded the economy in 1929, only 794 of the 1800 planes authorized were available. The increase in strength of the Air Service was, moreover, at the expense of the ground elements of the rest of the Army. In other words, the ground elements suffered a proportionately larger cut because of Air Service strengths necessary to utilize and maintain the expensive new aircraft. The other result was an awareness of the importance of naval air power. This subject is discussed later with other naval topics.

The Great Depression had caused personnel management in the armed forces to come to a total standstill. Economy so ruled the minds of the Congress that almost nothing was done. There was little new except for the incipient problems of the Air Service and the Army. The rest of the personnel management picture was dismal.

There were no funds available for Army maneuvers, and in March 1933 the pay of all ranks was cut 15 percent. Officers were transferred from units and assigned the mission of establishing and administering the Civil Conservation Corps (CCC), thus essentially stopping all training in the Army as well as the professional

development of officers. Little money was appropriated for experimentation with tank forces, which drastically hindered the development of officers skilled in tank warfare. Finally, the deadening effect of the lack of funds prevented realization of the tactical possibilities of combined arms until the Spanish Civil War in 1936 forced a belated consideration of this important new military development.¹⁵

In midsummer of 1939, as the spectre of World War II changed from an apparition to a fully developed monster, the Army was still equipped as it had been in 1918. About a quarter of the Army's 190,000 officers and men were dispersed in outlying possessions. The approximately 140,000 within the United States were scattered among 130 posts in the fashion of the Indian War days. Almost no garrison was larger than a battalion. Field Army commands scarcely existed except in theory; the corps headquarters functioned in the fashion of the old geographical departments and were definitely not the tactical commands intended by the National Defense Act of 1920. Of the nine infantry divisions supposedly in existence, only the first, second, and third had a framework of divisional organization while the other six were simply understrength brigades.¹⁶

In quality, the Army had major problems in mobilizing its officer resources. In quantity, the Army was in better shape than it had been for previous wars. Immediately available were the 13,797 regular officers then on active duty. The National Guard would bring another 21,074 officers, but of this number only 6800 had completed instructional courses in the appropriate service schools. In addition, now that the Army was keeping track of its ROTC graduates, there were 104,228 ROTC graduates as part of a total pool of 137,228 reserve officers. By 1 July 1941, about 56,700 of this pool had been called to active duty. They constituted from 75 to 90 percent of the officers serving in the regular Army divisions.¹⁷

Quality was once more a problem at the beginning of a major war. The unfitness of many officers was a well known fact. The same monotonous list of reasons showed that "the opportunities to test the

capacity even of senior Regular Army officers to command large units had been limited in the period of lean appropriations since World War I" and many had to be replaced.¹⁸ Many National Guard officers were too old for their particular grade: "in June 1941...22 percent or 771 of the first lieutenants ordered to duty in the National Guard were over 40 years old; 919 captains were over 45; 100 lieutenant colonels were over 55...." Of the 6800 National Guard officers who had completed courses in the service schools, some had completed them "many years in the past."¹⁹

The solution to this problem was difficult because the officers themselves were powerless to rectify the problems caused by past lack of money. Finally, however, a system of reclassification was instituted which fixed maximum age in grade with a program of resignations. "By this plan, the talents of senior officers regarded as unfit for command in the field could be utilized in administering fixed installations, or such officers might honorably resign from the service if their higher commanders certified that there was no vacancy in which they were needed."²⁰

The personnel management of officers was in a sorry state. It is no wonder that when World War II broke out, there were wholesale sackings of older officers who had been thrust into higher command. Circumstances in the preceding 20 years had prevented the type of training and experience which sound personnel management would have dictated. "There was no opportunity to train people in higher positions whatsoever."²¹

The post-war period was the battleground for a potentially important officer management problem: should the United States separate the Air Service from the Army and make it a separate service? In one sense the prime mover was a British decision in 1918 to establish an independent Royal Air Force (RAF). The RAF under its commander, Major General Sir Hugh Trenchard, immediately began to pursue the notion of "strategic missions to carry the war to the national resources which supported the armies in the field." Brigadier General William Mitchell of the air corps knew Trenchard, met with

him, and was influenced by him. Mitchell, in turn, began to propose an independent air force.²²

Mitchell's claims were sufficiently important to lead to a deliberatory board headed by Assistant Secretary of War Benedict Crowell. The board proposed a separate air force in 1919. But a more comprehensive report in 1923, by a board headed by Major General William Lassiter, urged caution. It pointed to the two varied types of air force operations: the support of ground forces and attack of areas remote from the ground forces. It recommended air units attached to ground commands for the first purpose, and a "large, semi-independent unit" for the second. It urged long-range efforts to build up pilot strength, organization, and an expansible aviation industry. The Lassiter report was, presumably, the views of the Army, whereas the Crowell Board probably was not.

Despite the Lassiter report, Billy Mitchell continued to advocate doctrines of air power and an independent air force through the early 1920s. His efforts led to his famous trial by court-martial which resulted in his conviction on charges of insubordination and provoked his resignation from the service.²³

Mitchell's court-martial prompted President Calvin Coolidge to appoint a board to investigate the air power claims. The board confined itself to recommending a minor increase in military aviation, not an independent air force. In 1926, the year after the court-martial, Congress did transform the Air Service into the Army Air Corps, and created the post of Assistant Secretary of War for Air, a post destined to be suspended in an economy drive in 1933.

Airmen continued their efforts and in 1933 a new board recommended a compromise whereby the Air Corps would be placed directly under a General Headquarters, Air Force, responsible to the General Staff. This plan clearly would grant considerable autonomy. Before it could be effected, President Roosevelt undertook the experiment of circumventing allegedly monopolistic commercial airline holding companies by canceling their contract to carry air mail and turning the air mail over to the Army Air Corps. The result was a

much publicized tragedy,²⁴ which dramatized the necessity for major revamping. Five Air Corps pilots were killed, six injured, and eight planes wrecked in the first week of carrying the mail. Billy Mitchell could proclaim the need for drastic changes to be proven; and still another board, under former War Secretary Baker, reiterated the recommendation for a General Headquarters, Air Force, to control operations, not supply and training, in the Air Corps. On 1 March 1935, it was established.

The officer management situation was somewhat improved in the new Army Air Corps. The Congress in 1926²⁵ authorized it to maintain its temporary promotions in field grades in order to maintain a proper rank structure. This delivered Air Corps officers from the stifling influence of the "hump" which was, in many instances, to keep their ground force comrades virtually without promotion for 20 years because of budgetary cutbacks and the stultification of promotion by seniority. Even now the Congress must periodically approve overstrengths in certain grades.

The 1954 Officer Grade Limitation Act (OGLA) delineated the field grade limitations for the military. In determining the OGLA grade limitations for each service, the Congress specified lower limitations for the Air Force in the grades of O-5 and O-6 than for the Army and Navy because the Air Force had been constituted from the Army Air Corps and its officer force was much younger than the Army's in terms of years of service. In 1959, the Air Force began to encounter promotion problems as its force matured and it ran up against OGLA ceilings more restrictive than those for the other services. Since strict enforcement of the ceilings would have required unacceptably high attrition rates, the Congress passed Air Force grade relief legislation on a temporary basis, allowing the Air Force additional officers in the grades of major and lieutenant colonel. It has, since 1959, passed temporary grade authorizations for the Air Force on eight occasions. On a percentage basis, these temporary ceilings placed the Air Force on a par with the other services.²⁶

The spectacular role of air power in World War II finally resolved the differences between the Army and its Air Corps. Legislation in 1947 created the Department of Defense and the independent U.S. Air Force. Henceforth, the services were separate and consisted of the Army, Navy, and Air Force, with a small and virtually autonomous Marine Corps.

THE NAVY

Like the Army, the Navy had its problems with its own air arm. Also like the Army, there had been a virtual explosion of naval air activity during World War I. Thus by the end of the war naval aviation consisted of 1147 officers and 18,308 enlisted men and had taken part in about 22,000 flights patrolling a total of 791,398 sea miles.²⁷ Despite this record of achievement, demobilization after the war was rapid even though the General Board of 23 June 1919 noted

To ensure air supremacy, to enable the United States Navy to meet on at least equal terms any possible enemy, and to put the United States in its proper place as a naval power, fleet aviation must be developed to the fullest extent. Aircraft have become an essential arm of the fleet. A naval air service must be established, capable of accompanying and operating with the fleet in all waters of the globe.²⁸

The board was suggesting that aircraft carriers become a part of the Navy's inventory of weapons. In due course, CV-1, the Langley, was commissioned on 20 March 1922 after conversion from the collier Jupiter. However, along with the program to obtain the carrier was agitation for creation of a separate naval bureau of aeronautics as the only means of "getting anywhere" and avoiding the irritation of having all aviation problems commented upon by seven bureaus whose views were often at conflict with each other.²⁹ This agitation did not cease and was fanned by the views of Mitchell and his fight for an independent Air Force.

Organizations act in strange ways and the activities of General Mitchell had an unintended effect: "His attacks made the whole Navy realize that its internal differences...were of trivial importance beside the necessity of saving Naval Aviation from extinction, and upon that necessity all hands could agree."³⁰ As a consequence of

agreement and the willing efforts of all concerned, a bill to create a separate Bureau of Aeronautics was passed on 12 July 1921.

From a personnel standpoint, the bureau had the authority to recommend the assignment of officers to flying duties, the distribution of aviation ratings, and methods of training personnel. All this meant that the Navy and its air arm had elected to remain together and that new personnel management problems were to be shared.

By 1922 these personnel problems reached a crisis. Many means had been suggested as ways of augmenting the number of naval aviators including holding reserve pilots on active duty, increasing the size of the Naval Academy, transferring men from other parts of the Navy, and training more enlisted men as pilots. None of these schemes worked primarily because funds were never made available to give them a fair trial.³¹ The situation was further complicated by rotation in duties. The Navy insisted, predictably, that its pilots also be qualified for sea duties. Therefore, pilots were rotated out of flying into sea billets. Thus, "among 100 officers trained as pilots at Pensacola during 1923, so many were ordered back to sea duties that only a net gain of 12 pilots accrued."³² At the same time the shortage of all officers had grown because in 1921 almost 1000 officers resigned. Even the addition of flight training to the curriculum at Annapolis did not help much. By the spring of 1924, only 308 officers of a total of 567 assigned to naval aviation were flyers. This meant that the prospects for manning the carriers Lexington and Saratoga were dim indeed because they required a complement of 175 aviators.

On 3 September 1925, a storm destroyed the dirigible Shenandoah.³³ A shocked nation called upon President Coolidge to investigate the causes of the tragedy. He responded by appointing a board headed by Dwight W. Morrow, a distinguished citizen. It contained representatives from the Army, Navy, the aircraft industry, Congress, the judiciary, and experts in the field of aeronautical engineering.³⁴ This distinguished board considered all aspects of aviation in the United States, both civilian and military.

It made numerous recommendations of which only the following are of concern to this report.³⁵

The 1800 aircraft program of the Army described earlier was an outgrowth of the Morrow Board. A similar program of 1000 planes for the Navy was authorized by an act of 21 May 1926 based upon the Board's recommendations. However, the act made no provision for the additional personnel who would be needed to man the 1000-plane program. This was doubly troublesome since the Navy as a whole was short of officers. A partial solution was achieved by authority to increase the number of midshipmen at the Naval Academy. The Reserve was also used to augment pilot strength and 50 ensigns were ordered to active duty in July 1927. Refresher courses were authorized with "the understanding that reserves who did well" would be eligible for active duty. Finally, in 1929, authority was obtained for allowing Naval Academy graduates to enter directly into advanced aviation training without the necessity for spending their first two years at sea before being allowed to volunteer for pilot training. The astounding result was that of the 402 members of the class of 1930, 238 volunteered for pilot training, of whom 186 were found to be qualified.³⁶ In the meantime, the rest of the Navy was having its own personnel problems.

If the naval building program begun during World War I had continued until its planned completion in 1925, the U.S. Navy would have been the strongest in the world. But it was never completed and instead was a victim of the Washington Disarmament Conference which began on Armistice Day of 1921.

History has demonstrated that the proponents of naval disarmament were at best naive. However, even in 1921 the actions of the United States seemed quixotic to at least one of the powerful figures of the day, Josephus Daniels, the Secretary of the Navy during World War I. His memoirs leave no doubt as to his feelings:

...I never dreamed that the great dreadnaughts I had sweat blood to get money to build would be scrapped when partly completed by the inept "Washington Conference," in which Britain and Japan scrapped blue-prints and old ships, and Uncle Sam was sap enough to scrap great ships in building, which would have given us the strongest Navy in the world.

I kept my seat, apparently busily engaged in writing, while all the men around me were standing in an abandon of enthusiasm. A fellow journalist, observing my position, put his hand on my shoulder saying, "Get up, Josephus. This is the most notable day in our history. It connotes the end of war." I kept my seat, saying, "You may cheer if you please at scuttling powerful ships of our Navy; others may do so, but I decline to applaud at my own funeral...I decline to applaud the worst blow aimed at the Navy."³⁷

The Disarmament Conference meant that the Navy could not increase its officer corps. Instead it meant cuts in strength, cuts made deeper by the Depression of 1921. Officer strength decreased from 16,501 in 1921 to a low of 13,784 in 1924. This latter figure increased to approximately 14,000 where it stayed until the Great Depression, when it dropped to a low of 13,512 in 1936.

The Navy had not benefited from the Morrill Act and the ROTC legislation of 1916. However, in 1926 naval ROTC was authorized, solving part of the quantity and quality problem for World War II.

It will be recalled that the Naval Personnel Act of 1916 had instituted the principle of promotion by selection of the "best fitted." The act provided promotion by selection to the grades of commander, captain, and rear admiral. (Promotion up to lieutenant commander continued to be by seniority.) Those who failed selection were separated when they reached an "age in grade" limit. Such separation was more palatable to the losers than "plucking," as there was no implication that they were not qualified.

A short time later selection was extended to include senior officers of the staff corps. In 1926 the "running mate" system was instituted, in the so-called Equalization Act of that year. Prior to that time each staff corps had had a separate promotion list governed by an independent grade distribution. Consequently officers who were commissioned in the same year might at a later time be commander-line, captain-construction corps, and lieutenant commander-supply corps, depending on conditions in their own category.

In 1931 the basis upon which officers were separated from the service was changed from age in grade to service in grade. Until this change, the officer who had entered the Naval Academy at 17 had a

distinct advantage over one who entered at 20. The latter might be retired for age in grade before being considered for promotion. Under the service in grade provision they were placed on an equal footing. The service in grade criterion is still in use for all services.

After World War I, a number of temporary officers who had served ably were transferred to the regular Navy. As these officers were all of the same date of commission (within a year or two) they, with their Naval Academy contemporaries, made up a promotional group larger than normal, comprising a "hump." Finding appropriate duties for these officers both ashore and afloat was difficult, if not impossible, and so in 1934 promotion by selection and percentage grade distribution was extended to include the grades of lieutenant and lieutenant commander, as well as commander, captain, and rear admiral. (The act of 1899 had provided for the automatic promotion of ensigns to lieutenant, junior grade, after three years of commissioned service.)

Very heavy forced attrition to meet grade distribution in the ranks of lieutenant and lieutenant commander caused large numbers of young officers to be retired and created concern in the Congress. In 1938 a promotion law was enacted that provided for some of the officers who were not selected as "best fitted" for promotion to be promoted and retained as "fitted" officers. An officer could be labeled by a selection board "best fitted" (promotion in the normal manner), or if once failed he could, by a subsequent board, be selected as "best fitted," "fitted and retained" (promoted, but earmarked for retirement after service in the higher grade), "fitted and not retained" (promoted and immediately retired), or he could again fail selection and be separated from the service. For the first time a selection law had provided a "grade B" stamp for part of the officer corps. Just what result the continued operation of this law would have been cannot be told for World War II erupted while the system was in the infant stage.

The "fitted" or class "B" officers retained on active duty were carried as extra numbers in grade, outside the grade distribution restrictions imposed on the command pyramid. The question of the

value of this system and the usefulness of "fitted" officers was described by Rear Admiral George Russell, U.S. Navy, in a memorandum on the selection system, which reads in part:

Then came the promotion law of 1938 with its provision for the promotion and retention of the less qualified officers as "fitted." World War II with its changes ensued shortly thereafter and before the performance of "fitted" officers had received the test of time, but I think most informed naval officers agree that there was sufficient testing of the matter to demonstrate that a second-class naval officer is not much of an asset. Many, if not all, of the officers designated as "fitted" felt it very keenly, even though their reactions differed. Some of them were embittered, some dropped the bricks, some were just plain hurt, some had the "I'll show 'em" attitude, and some were entirely philosophical about it.³⁸

The various problems of officer management had, as usual, come to rest on various schemes to speed up promotion while simultaneously ensuring equity for those with long service. Whatever the merits of the various systems, all came to an abrupt halt with the attack on Pearl Harbor on 7 December 1941. The personnel management of officers bowed to the exigencies of the battlefield, and promotions and most other management problems were decentralized to the various fighting commands.

SERVICE DEVELOPMENTS AFTER WORLD WAR II

The experience of World War II in which the deficiencies of prewar training were manifested in a high rate of relief from command of senior officers led to an interest in career management. The services would try to guide an officer into a series of assignments which would serve to "round" him in the sense that he would experience command, staff, student, and instructor duties whenever possible. In addition, for those officers who were strictly specialist, career patterns would be prescribed which would ensure that their interest in a specialty did not isolate them from the very service they were to help.

The Army, in particular, had a very elaborate and carefully documented series of career development models. Because it was so carefully documented, it is easier to describe than were the models used by the other services.³⁹

In 1948 the Army began the publication of a series of pamphlets bearing the general title, Career Planning for Army Officers. Their general theme is stated in the 1964 version: "Career planning requires the establishment of a program of duty assignments and formal schooling designed to meet the current need of the Army and develop skills for future requirements." This was a change from the 1961 version which had stated "...while developing and stockpiling skills for future requirements." Presumably, in the dynamic days of 1964, as the Vietnamese War loomed on the horizon, the word stockpiling carried a wasteful and stagnant connotation. In any event, the pamphlets were precise as to who was responsible for career management and the development of the precious human resource that is the officer strength of the Army: "Officer career planning is a responsibility of the Department of the Army, of the officer's immediate and intermediate commanders, and of the individual." Moreover, it was incumbent upon the individual officer to either visit or write to the appropriate career development officer once every three years to make his wishes known, evaluate his own record, and to ensure "that he [had] a current preference statement on file and that the choices [of assignment] are logical and in accord with the career pattern of his branch."

The manuals give an important admonition to the officer. Indeed, to those in the service at the time it might even have sounded ominous: "The most important element in the career management of the individual is the individual himself. It is essential that an officer be able to recognize repetitive type assignments which do not broaden his experience to the degree it should be broadened." This warning is later amplified in words which make old soldiers, ill-prepared for volunteering, almost cringe with despair:

On a few occasions in an officer's career, he has a choice between what might be a desirable and pleasant assignment, including continuation of a current position, and another assignment involving personal sacrifice, additional effort, or even danger on his part. In such situations, the officer can many times influence to a high or even decisive degree the final determination of his assignment. Consequently, he should weigh very carefully the advantages and disadvantages of either assignment since the more difficult might well be the very type which, if successfully accomplished, would indicate the true professional potential of the officer.

Clearly the Army was trying to tell officers that the most important type of duty was command duty because it was a commonly held notion among officers that the risks associated with command insofar as efficiency reports were concerned were very great. The Army was extremely demanding of its commanders, of whom it might be said that many were called but few were chosen to remain in command for long periods of time.

What these policies did, however, was something probably more subtle than had been anticipated. Officers perceived the policies differently in their quest to be promoted to the rank of general officer. It was believed that an officer should get a command, keep it for only as long as was necessary to get a good efficiency report, and then avoid further command in that grade because of the risk of a possibly poor efficiency report. Once having received the command ticket, he should seek assignments that showed the career branches that the officer did not enjoy "repetitive" assignments. However, the assignments sought should either be on the staff or in an instructing billet because one could obtain good efficiency reports in these kinds of assignments--it being a commonly held notion that staff efficiency reports were routinely better than those received in command assignments. Finally, an officer should strive to be selected for one of the several high level colleges. These were schools for which one had to be selected and for which there was a quota. The limited space permitted only a few officers to attend each year. This factor lent an aura of "screening" to those who had been selected. The schools involved were the Army Command and General Staff College, the Armed

Forces Staff College, and the Army War College. These, too, were good tickets to have when the selection boards had to decide which of the many officers available would receive the limited number of promotions.

These policies also made officers avoid specialization. Clearly, a specialist could not avoid the dreaded "repetitive" assignments. Thus, at a time when the Army was entering a period of increased technology and an increased demand for "specialists" who knew how to manage, utilize, and maintain the products of that technology, qualified officers were shunning specialization in nuclear technology, foreign languages and the area knowledge associated with them, and the growing field of missiles and advanced communications, to say nothing of the growing complexity of logistics.

The effects described above as they related to Army officers had similar effects in the other services. The main fallout in all cases was the cry that the specialist, so needed in the new era of technology, was getting short shrift in the promotions to higher grades. Officers hesitated to be anything but generalists. All services (including the Army, of course) took steps to assure officers that the specialist could advance to flag rank. The Navy, as pointed out earlier, had already faced the problem in the lower ranks by its running mate system. For the Army and Air Force special efforts were made to promote specialists or non-rated officers into the general officer slots. In addition, elaborate management plans came into being. Typical of these was the USAF Personnel Plan, whose third chapter was devoted to "Officer Management Objectives." These objectives for officers were applied to functional areas such as procurement, education, training, and utilization, to list but four of the principal ones. All objectives, however, "follow the officer force through the stages from initial procurement to retirement. In total, the objectives portray the characteristics of a desired officer force and provide the basis for continued validation and modification of the force."⁴⁰

The fact is, however, that despite the efforts made in the services to assure that the specialist does get equal treatment at promotion time, the problem has not been solved. The reasons are many, but at the root of the problem is the feeling that the primary function of the given service is to fight its particular battle. To fight that battle a commander is needed who understands the intricacies of the service as a whole and who has had combat experience himself. This set of criteria means that the specialist is at a disadvantage. He cannot simultaneously be an expert in a highly technical or difficult field and also be a generalist in everything concerned with his particular service. The Army thus tends to think that its top generals should come from one of the combat arms (infantry, armor, or artillery); the Navy tends to think that its top commanders should come from among those who have successfully commanded vessels at sea, preferably combat vessels such as carriers, destroyers, cruisers, or submarines; and the Air Force thinks that its top leaders should come from those who are rated pilots.

The Air Force view of specialists is somewhat different from that of the other services. Everyone in the Air Force is, in a sense, a specialist, from the pilot to the navigator to the radar specialist to the strategic missileer. The pilot is, however, a commander. He commands his aircraft, some command squadrons, others command wings, and so on in the chain of command. Hence, the Air Force's rationale for giving the pilot a preferred position in moving up through the chain of command is only that he has had command experience. In this sense, the Air Force emphasis is somewhat less specialist versus generalist and more commander versus non-commander.

The reality is that given what is an inherently contradictory set of requirements, the problem will not be solved easily. There is no way, at present, to deny the importance of combat, but there is also no way to be able to fight modern wars without specialists. Thus the struggle between the generalist and the specialist will endure.

The old problems of opportunity for promotion demonstrated that like old soldiers, they never die. More frustrating was that

unlike old soldiers, they refused to fade away. The frustration came from the Personnel Act of 1947 which had failed to perform as intended because of a provision concerning longevity rights of lieutenant colonels and colonels in the regular Army and Air Force.

When World War II ended the Congress authorized a larger regular establishment than at any other previous time in our history. In turn this required the granting of regular commissions to the number of officers needed to fill the vacancies which existed. The natural source of these officers was the numerous highly trained and combat experienced officers who had graduated from the OCS programs or had been called to active duty upon graduation from the ROTC program. In the ensuing search for and acceptance of officers, an unexpected thing happened: the reappearance of a "hump" despite the similar incidences after each of the other major wars. What was doubly disturbing was that the Personnel Act of 1947 had introduced the up-or-out system which had been designed to prevent the stagnation in promotion that now threatened in the early 1960s.

The causative factor was the provision of the act which permitted colonels/captains to remain on active duty even if passed over twice for promotion to flag rank and which permitted lieutenant colonels/commanders to remain on active duty until 28 years of service even if passed over twice for promotion to the grade of colonel. Because of these two provisions of the act and because the large numbers of officers taken into the regular establishment were precisely in those two grades or had been promoted to those grades between 1945 and the early 1960s, there was now a sizeable "hump" in those grades. Thus promotion was held up for the younger officers entering active duty after the large integration of officers.

The solution chosen for the Army and the Air Force was the popularly named "White Charger" legislation passed in 1960.⁴¹ This legislation authorized the Secretary of the Army and the Secretary of the Air Force to convene one or more boards "each consisting of at least five officers...in and above the grade of colonel, to review the records of, and recommend for continuation on the active list in the

regular grade of colonel or lieutenant colonel who have at least 20 years of service" (or the equivalent) and "who have been considered more than twice but not recommended for promotion to the next higher regular grade."⁴² The authority granted was "not effective after June 30, 1965."

The Army and Air Force today are merely reflections of the officer corps which served during World War II. Today's corps is composed of both the regular officers and those reservists who have been on active duty for extended periods of time. In this larger force, active officers can hold two ranks--one in the regular establishment and one in the larger force of regular and reserve components. Since the regular officers affected by the White Charger legislation held ranks of lieutenant colonel or higher in the regular establishment, they also held their highest rank in the other active duty establishment. Thus, they served to block both permanent and temporary promotions. The White Charger legislation opened this log jam of officers who would remain in their permanent ranks anywhere from one to ten years with little probability of being promoted.

The Congressional view was that the legislation was designed as a quality control measure. The Congress even revived the old notion of "plucking" boards: "...the first portion [of the legislation] deals with the authority to 'pluck' officers who have failed of selection to the next higher grade, while serving in the grade of colonel or lieutenant colonel, three or more times...."⁴³ It then emphasized that the proposed legislation was not designed to create vacancies."⁴⁴

Regardless of the language of the Congressional report, active duty officers interpreted the purpose of the legislation precisely as a means of creating vacancies.⁴⁵ This specific view was reinforced by what had happened a year earlier. "In 1959, the Congress enacted the so-called Hump Act, which permitted the Navy and the Marine Corps to voluntarily retire, ahead of schedule, commanders and captains, and their Marine Corps equivalents, in order to create vacancies for lieutenant commanders."⁴⁶

A new factor entered into the officer personnel management picture after World War II as a result of the close relationship between the services and industry as they worked together during the war to forge the most formidable armed forces in the history of mankind. The new factor was a somewhat invidious comparison (from the military viewpoint) between the personnel practices of the services and those of industry--particularly as the comparison applied to the recruitment, training, and utilization of the officer corps versus industry's managers.

NOTES

1. Weigley, op. cit., p. 395.
2. All numbers are from Historical Statistics, op. cit., series Y904-916, p. 1141.
3. Milton, op. cit., p. 101.
4. Ibid.
5. The Hawthorne Studies began in 1924 and ended in 1933. See F. J. Roethlisberger and William J. Dickinson, Management and the Worker, An Account of a Research Program Conducted by the Western Electric Company, Hawthorne Works, Chicago, Harvard University Press, Cambridge, Mass., 1950. See also the booklet issued by Western Electric, The Hawthorne Studies, 1924/1974.
6. U.S. Statutes at Large, Sixty-Seventh Congress, Session II, Chap. 212, pp. 625-633, established six pay periods for grades below flag officer, formalized longevity pay, established credit for National Guard services for pay purposes, and equalized these provisions throughout all services.
7. Ibid., Sixty-fourth Congress, Session I, Chap. 417, pp. 556-619, provided for promotion by selection to the grade of commander and above.
8. Wright, op. cit., p. 778.
9. Ibid., p. 779.
10. Statistical Abstract, op. cit., p. 1141.

11. Ganoe, op. cit., p. 484.
12. Ibid., pp. 483-484.
13. Ibid., p. 499.
14. When troops were dispatched to the Mexican border in April 1929 to prevent raids by bandits, the air corps was able to muster only 18 planes. Ibid., p. 492.
15. In the meanwhile, European armies were using this arena to perfect their use of tanks, artillery, and air power. There is no record of formal U.S. participation.
16. Weigley, op. cit., p. 419, is the source for the details in this paragraph.
17. K. R. Greenfield, R. R. Palmer, and B. I. Wiley, United States Army in World War II, The Army Ground Forces, The Organization of Ground Combat Forces, Department of the Army, Washington, D.C., 1947, p. 11.
18. Ibid., p. 48. See also Officer Personnel Act of 1947, op. cit., p. 10.
19. Ibid., p. 48.
20. Ibid., p. 49.
21. Ibid., p. 10. The quote is from the direct statement of General Eisenhower in his testimony.
22. The material on the Air Force in this and the next paragraphs is based on Weigley, op. cit., pp. 412-414.
23. Montross, op. cit., pp. 762-765, discusses Mitchell's ideas. These included carpet bombing, airborne troops, and, of course, the controversial ideas concerning the vulnerability of capital ships. Montross is more impressed by Mitchell than is Weigley, whose treatment of Mitchell's ideas is rather unfavorable.
24. The author still remembers the lurid newspaper headlines and the heroic pilots shown on the Pathe News in movie theaters.
25. Military Laws of the United States, 8th ed., 1939, p. 130.
26. Defense Officer Personnel Management Act: Report of the Committee on Armed Services, House of Representatives, to accompany H.R. 13958, 24 June 1976, pp. 10, 11.
27. Archibald D. Turnbull and Clifford I. Lord, History of United States Naval Aviation, Yale University Press, New Haven, Conn., 1949, p. 144, is the source of these numbers.

28. Ibid., p. 161.
29. Ibid., Chap. 14, contains a more detailed discussion of bureau views and their conflicting statements.
30. Ibid., p. 186.
31. Ibid., p. 228.
32. Ibid., p. 229.
33. The author has a clear memory of one of the crew, a family friend, who visited just a few days before the crash that totally stunned the nation.
34. See Turnbull, op. cit., pp. 249-258, for more details.
35. The Board also addressed the problems of civil aviation and its recommendations laid the basis for the system as we know it today.
36. The number of volunteers cited is from Turnbull, op. cit., p. 269, and the class total is from Register of Alumni, op. cit., p. 158.
37. Josephus Daniels, The Wilson Era, Years of War and After, 1917-1923, Greenwood Press, Westport, Conn., reprinted in 1974 with permission of The University of North Carolina Press, pp. 586, 587. The actual tonnages agreed to be scrapped were as follows: United States, 618,000 tons; Great Britain, 172,000 tons; and Japan, 289,100 tons. Senate Documents, Vol. X, p. 797, cited in Clark, op. cit., p. 522.
38. Commander R. V. Wheeler, Jr., and Commander S. H. Kinney, U.S. Navy, "The Promotion of Career Officers," U.S. Naval Institute Proceedings, June 1954, p. 640.
39. The discussion on Army career management is based on the author's personal experience from 1951 through 1953 when he served in the Infantry Career Management Branch of the Army and was the assistant chief of the branch for approximately 18 months.
40. Department of the Air Force, The USAF Personnel Plan, 5 September 1975, Section 3, p. 1.
41. U.S. Code, Section 10, Public Law 86-616, p. 1529.
42. Ibid., p. 1530.
43. Elimination of Certain Officers of the Regular Army and Regular Air Force, Report to accompany S.1795, 86th Congress, 2nd Session, House of Representatives, Report 1406, 17 March 1960, p. 11.
44. Ibid.

45. The author was on active duty for several years during and after this time.

46. Congressional Report 1406, op. cit., pp. 11, 12.

VIII. INDUSTRY AND THE SERVICES AFTER WORLD WAR II

THE CONTEXT

World War II spurred the growth of personnel management of managers.¹ The war's stimulus had resulted in the growth of American industry on a global scale and an attendant need for managers in unprecedented numbers. However, because of "the explosive growth of technology and the near exponential rise in the economy"² prewar personnel planners had not foreseen the necessity for managers in the required numbers. Industry took strong remedial action to correct the wholesale shortage. For instance, "Sears stepped up its recruitment in colleges because all the other companies were doing the same thing...."³ The growth of the need for trained managers was reflected in the courses offered at universities: of 45 large universities offering management training, three were founded in the 1940s, 34 were founded in the 1950s with the bulk of these being between 1952 and 1955, and eight were founded in the 1960s. These courses grew out of the Harvard course founded in 1943 as well as the experience of corporations during World War II and the resultant dearth of trained middle managers.⁴

Another factor encouraging better personnel management was a function of the law of supply and demand. Projections from the depressed birth rates of the 1929 Depression period showed that a severe shortage of 35 to 45 year old males would not begin to correct itself until sometime in 1974. In simple terms, this meant that there would be a smaller sample from which to choose the increased number of managers needed; and there was, therefore, the concurrent necessity to manage those who might be marginally able to perform managerial tasks. There is still general agreement that good managers are in short supply and companies have had "to develop training programs that [are] more formal and precise...."⁵

Still another factor exacerbated the possible shortage described in the preceding chapter. By the 1970s the personnel strength of some firms had grown to levels unimaginable even at the beginning of World

War II. To cite but a few examples: in 1972 Ford Motor Company had 440,000 employees, Chrysler Corporation had 240,000, General Electric had 370,000, International Telephone and Telegraph Corporation had 430,000, RCA had 120,000, and in 1976 General Motors had 811,000.⁶ In contrast, the strength of the U.S. Army in March of 1976 was only 771,301.

The same unprecedented growth occurred in the military. The Army and Air Force reached a total of 8,267,958 men at the peak strength of World War II. Of this total 891,663 were officers and though this number was to shrink drastically, the Korean War expanded the Army officer corps to 148,427 and the Air Force to 130,769, and then to 172,590 and 139,691 during the peak of the Vietnamese War.⁷ The growth in officer strength ultimately led to a growth in pay of officers (and enlisted men) and a strong impetus to ensure that the management of this valuable resource was efficient.

The point is this: the growing complexity of industrial operations both in worldwide scope and in the number of employees created management problems for industry which are remarkably like those in the services. This phenomenon, not present in previous periods, was a result of the sudden explosive growth engendered by World War II. As will be seen later, the services became innovators because they had to deal with such issues as retirement, forced attrition, benefits for survivors, health care, training, and other personnel management considerations. They had had to deal with these issues over a 200 year period whereas industry had had no cohesive force which necessitated its treating these same problems except on an individual firm basis. Their results were initially uneven as compared with the record of the military. In what follows, three major functional areas and their corollaries will be discussed to amplify this point: acquisition of personnel, retention and elimination of personnel, and training.

PERSONNEL ACQUISITION

There are three sources of managerial personnel in industry: promotion within the managerial group itself; promotion from the rank

and file; and hiring from outside the firm directly into the managerial class, commonly called lateral entry.

Promotion of managers from within an organization was the preferred method of industry prior to World War I when, as shown earlier, its needs for managers were relatively slight. A study circa 1918 supports this preference. In an interview the medical director of a large firm stated, "If a new executive were to be appointed from outside our organization, naturally his physical condition would be considered. As a matter of fact, however, all our executives have been developed from within the organization."⁸

The same pattern apparently prevailed during the Great Depression but was (to an unknown extent) ignored during World War II because of the general shortage of manpower. In the postwar years the practice was restored:

Most large organizations today have a policy of promotion from within. Many have proved to themselves that "the longest way around is the shortest way home...." They have been disillusioned so consistently by men who have failed to adjust to their organizations that promotion from within has earned wide acceptance as the most economical and the soundest method of providing for future needs of managerial talent. At best, the employment of...talent from outside is risky. At worst, it can be disastrous, not only to morale, but to the firm's balance sheet.⁹

Why in the face of the shortage of managerial talent do some companies limit themselves by promoting from within so frequently? The answer seems to be that the talent within companies is better known and, thus, safer than outside talent. Also, there is the feeling that one's own company is different and that intimate knowledge of its problems is important from the start.¹⁰ This is, of course, a replay of military arguments for bringing its officers into the service through its own system.

Despite the possible pitfalls and disappointment of promotion from within the firm, once personnel are recruited from college, it is a major method of holding lateral entry to a minimum. In a study conducted by the American Management Association (AMA) of firms who had plans to hire college graduates as potential manager trainees" more than half (seven out of ten in the AMA sample) were able to fill

at least 80 percent of their vacancies by promotions from within."¹¹ Though there is a lack of uniformity in industry data, the majority of companies covered in the survey reported that they filled less than 10 percent of their top and middle management jobs by outside recruitment: "15 percent of the companies surveyed by AMA did little or no...recruiting while 43 percent of the companies filled less than one-tenth of their...openings from outside. But the remaining participants, two companies out of five, recruited more than 10 percent of their new managers/executives. The larger the firm, the less likely it was to hire managers from outside."¹²

Given the now widespread belief that college graduates have a competitive edge in management selection, we will now discuss schools with business degrees.

The military were innovators in the college geared to a specific demand in their establishment of West Point in 1802, a school which has had a major impact on the military and indirectly on industry. "A majority of the nineteen engineering schools established before 1870, including those at Harvard and Yale" were influenced by the Academy because they "had direct pedagogical affiliations."¹³ Through the years the Academy has provided the backbone of the regular Army officer corps although the steady output of excellent officers by the ROTC colleges has provided a counterpoise to any inbreeding which might result from total reliance upon a single source of supply.

There was no comparable business training until almost 80 years later although there had been two unsuccessful attempts to establish collegiate schools of business in the mid-1800s: at the University of Louisiana in 1851 and at Washington College in 1868 (the latter by Robert E. Lee, and abandoned at his death in 1870).¹⁴ The first successful business school was not established until 1881 at the University of Pennsylvania by a bequest left by Joseph Wharton. The Wharton School was finally given its own dean, faculty, and budget in 1912. In the next half century the growth in the number of business schools was explosive and by 1960 there were an estimated 560 such schools.¹⁵

Enrollment followed the growth of schools: 96 students in 1895 grew to 4321 in 1914 and to 11,653 by 1918.¹⁶ This growth continued each year. Enrollment increases followed the end of World War II. The G.I. Bill was a major factor in the resultant massive jumps in enrollment and degrees granted: 217,028 enrolled in 1950, 405,802 in 1966, and an estimated 600,000 in 1970.¹⁷

As noted earlier, the flow of new officers into the military in any given year is treated as a cohort based on the year of entry. The members of the cohort advance through the military ranks based on years of service. This is a major advantage in that the year-group concept makes a steady-state analysis of the total officer corps strength less difficult because losses can be determined with relative accuracy which, in turn, provides an easier computation of needed inputs. In contrast, industrial managerial inputs do not appear to be so formal although a clear judgment is difficult to reach because data are scarce and there are only hints in the literature as to industrial practices.

For instance, in some of the larger firms, the yearly input does appear to be on a year-group basis. We know that General Electric has a company-run management institute; in the oil industry, Standard of New Jersey executives have a project to locate management potential at an early age; and a dozen other large companies are cooperating in a similar effort.¹⁸ Proctor and Gamble conducts a management recruiting program in recessions as well as in periods of good business because the stoppage of such programs means the absence of needed management talent ten or twenty years later.¹⁹

In other large firms, the literature infers that the year-group idea is used in combination with selection from within. Armco's policy is that "promotion shall be from within the corporation. [As a result] in spite of the manpower shortage during World War II and the post-war period...[there was no] need for recruiting managers or general executives outside its own ranks."²⁰

Another large firm has a more explicit statement which relates input on a year-group basis with promotion from within: "Consolidated

Edison Company of New York prides itself on a firm policy of promotion from the ranks. At times it finds natural losses exceeding the rate at which suitable replacements can be expected to mature. Hence, the need for estimating future requirements [and] hiring...a suitable number of young people with management potential...[developed] through a cadet" program.²¹

A well-known large firm, Sears, has a very formal program. "In 1933 the company...began what it calls the Reserve Group Program which, simply stated, identifies through an orderly process the individuals who have management talent and keeps records on them. By the 1940s the company had opened more than 600 retail stores...[and] found that it could actually promote from within."²²

That lateral entry is not a common practice is shown by the preceding paragraphs, which emphasize the strong preference of large firms to promote college graduates generally hired because of managerial potential. It should be noted, however, that while "very large companies almost never need to go outside for middle-level line managers, large and medium-sized companies sometimes do."²³

At higher levels of management there is some evidence of a trend to look outside the firm for executives. It is estimated that two out of five presidents are men who have moved into high levels of the corporation from other corporations.²⁴ The trend is such that every president will have moved at least once and 60 percent will have moved twice.²⁵

These findings are at variance with a Stanford University study in 1967 of 15 large firms with sales in 1967 of \$60 billion, assets of \$51.1 billion, and 1,920,000 employees, who produced 7.64 percent of the gross national product.²⁶ The Stanford study concluded in part that

There was little evidence of any proselytizing of managerial talent from other companies, particularly at the top management level. It has been a rare exception when a top executive has been brought in from outside the company. When this occurred, it was done to acquire specialized talent not available within the particular company or to meet unusual demands caused by expansion or organizational changes. The promotion-from-within policy followed by most

of the participating companies tends to produce a rather stable group of managerial personnel with relatively long seniority with the company.²⁷

A third study tends to substantiate the first finding. A recurring five-year survey (the most recent available is dated 1972²⁸) by a major executive recruiting firm concluded that "the number of presidents devoting their careers to a single employer has dropped dramatically over the past decade." At least one source estimates that 75 percent of the nation's chief executives have been with their company less than ten years.²⁹

On balance, it seems that lateral entry does occur with increasing frequency at the executive level but not to any significant extent at middle-management levels (the hiring of college graduates or others at the junior manager level is not considered lateral entry). The second half of the conclusion is, however, much more tentative and requires more evidence.³⁰

In contrast to industry, there is no lateral entry into the military except in specialized fields like medicine and religion. The military has good reasons for this based on its historical experiences.

Lateral entry directly from civilian life into the higher ranks of the officer corps was a common phenomenon prior to World War I. When four new regiments of dragoons were formed in 1836, 30 officers were appointed directly from civilian life and four from West Point graduates. Of the Army's 37 generals from 1802 to 1861, not one was a West Pointer; 23 were virtually without military experience until appointed and 11 others had entered the service in the grade of captain or higher because regulations encouraged appointments from civilian life.³¹

Officers were elected in the militia and in the lower ranks of Civil War volunteers. Until the last years of the Civil War, politics, not merit, dictated appointments to the highest Army posts. Influence was equally important in the Navy and Marine Corps, although in these services it was more personal in nature, with nepotism not uncommon. "The most important factor in the selection of midshipmen," writes Paullin of the years from 1815 to 1842, "was political and

personal influence; and many statesmen of the olden times left memorials of their families in the Navy list by making midshipmen of sundry sons, grandsons, nephews, and cousins."

This experience was repeated in the Spanish-American War where again political power, rather than merit, played a significant role. Under the law of 22 April 1898, the states commissioned the regimental and company commanders of their volunteers while the President selected a specified number of major generals, brigadier generals, and staff officers for each division actually formed.³² During May and June of 1898, the months in which the Army took shape, more than 25,000 applications, reinforced by endorsements from influential friends in politics and the business community, descended on the War Department.

President McKinley took a personal interest in directing appointments or promotions for old Ohio friends.³³ He also used Army appointments to recognize sectional interests as well as to reward special groups. To consolidate support for his administration, he gave each state a share of the total commissions roughly proportional to its population and to its importance in national affairs. He was very careful to give Democrats, and especially southern Democrats, a large portion of the higher ranking military appointments. He made this decision for two reasons: first, he wanted to increase southern support for his administration; second, as the first war president since Appomattox, he wanted to show that Blue and Gray now stood united against the national enemy. To implement this policy, McKinley awarded major general commissions to Joseph Wheeler of Alabama and Fitzhugh Lee of Virginia, both distinguished Confederate cavalry leaders and influential southern Democrats. Lesser Confederate veterans received brigadier general stars.³⁴

Despite the scandals of the Spanish-American War and the reforms which followed it, the system of officer appointments remained in the law. As late as 1901 that law continued to provide that "captains and lieutenants of companies [of militia] shall be elected by the written votes of the enlisted men of the respective companies"³⁵ --a provision that did not disappear until World War I.

Today there is general agreement that battlefield leadership requires special training even at the lowest ranks. At the higher levels of command, the range of knowledge required is so diverse that there is little visible support for the principle of lateral entry. Over the years the bitter experience of war has demonstrated to Congress that it is better to opt for a system based upon merit when the lives of their constituents are at stake than it is to perpetuate the political excesses in the granting of commissions that occurred in our wars prior to World War I. Lateral entry is simply too costly.

Directly related to the acquisition of managerial personnel is the question of how many managers a firm or an armed service needs to do its job properly. From this number, the quantity of trainees or lieutenants can be calculated. As might be expected, there is no pat or easy answer. However, the comparison of "requirements" between the services and industry is somewhat easier to discuss, although it is complicated by the definition of the term management level.³⁶

In industry, management level carries at least three different connotations. First, it may refer to the reporting relationship in the chain of command. Second, it may refer to the relative importance of jobs as reflected by titles. Third, it may refer to different responsibility levels as shown in salary grades. A moment's reflection will show that none of these three uses of the term management level is without major definitional problems since each may be specific to a given firm.

One recent study³⁷ adopted an approach which tends to minimize the analytic problems inherent in definitional ambiguity. The individuals in the organization were arrayed in descending order on the basis of salary (or its equivalent) and then a management level was defined as those who represented a particular percentage of the firm's payroll. For example, those accounting for the top 5 percent of the payroll expense could be regarded as being at one level, those accounting for the next 15 percent at another level, and so on. With the data presented in cumulative form, any percentages could be specified for various levels and the relative number of people at each

such specified level in different organizations could be compared with precision. Tentative findings of the study are summarized below.

When the personnel on the exempt payrolls at the end of 1972 within seven giant corporations were arrayed in descending orders of their salaries, the following consistent patterns emerged. First, the distribution of personnel at various relative-share-of-compensation levels is virtually identical for all the companies. Second, virtually the same small proportion of every company's exempt personnel receives salaries of \$26,000 or more. Third, there are probably only small percentages of each company's exempt employees at the lowest exempt salary level. Fourth, the vast majority of exempt personnel are within a relatively narrow dollar salary range. Finally, the companies' traditional organization profiles are indeed diverse, but they are different from their profiles based on relative compensation levels and those compensation level profiles are remarkably the same.

A similar general approach was followed in studying the staffing patterns of the officer force on active duty at the end of 1972. The process of arraying officers showed that, overall, the distribution of officer personnel at various relative-share-of-compensation levels was virtually congruent with the common configuration found for exempt personnel in the seven large corporations. In other words, regardless of what the organization charts show for both industry and the military, the fact is that when people are arrayed by compensation, the "real" organizations are remarkably similar. The one difference was that the number of military personnel in very high compensation levels was less than in industry--a natural result when one considers the various restrictions imposed on top salaries by the Congress. The study also showed that the military used fewer managers compared to the seven companies: "At dollar compensation amounts below \$31,000, the distribution...for military officers is remarkably similar to the distribution of salaries for exempt personnel in the business organizations...in fact, the cumulative percentage figures for military officers usually fall toward the middle of the range of comparable figures from the participating companies."

The study cited above was, as noted, confined to a small sample. Therefore, additional work must be done to generalize the results. In the interim, however, the findings suggest that the real organizations of both big business and the military are much alike.³⁸

RETENTION OF PERSONNEL

Retention of personnel in both the military and industry has some interesting parallels. Most large companies, as revealed by annual studies conducted by Northwestern University, lose about half of the graduates they have hired by the end of the third year of employment.³⁹ Another source puts the loss at 50 percent at the end of five years.⁴⁰

The reason appears, in part, to be a failure of the company to educate its new trainees on the merits of the company itself.⁴¹ When one company took positive steps to educate its young college graduates on the value of staying with the firm, it found that of 469 persons who attended the special seminars, 21.5 percent quit whereas, of 540 who did not attend, 39.6 percent quit.⁴²

Roughly comparable data for the military are in an Air Force study⁴³ which shows that at the end of the third year of service, 75 percent of the lieutenants were still on active duty. At the end of the fifth year, 58 percent were still on active duty and a majority of those had a favorable attitude toward service life.⁴⁴ The percentage of retention of lieutenants and newly hired college graduates is almost identical.

The striking similarity of data for junior officers in the service and their counterparts in industry suggests that regardless of the job a new graduate takes, about 50 percent change within the first to fifth years after graduation. A possible explanation of this phenomenon is that it is one of the symptoms of the entire syndrome associated with the maturing process and is essentially unrelated to the first job. The data are, of course, sparse and suggestive only. However, further research appears warranted.

Data on retention of those with more than five years of service are likewise sparse. Retention appears to be more associated with termination policies than with recruiting policies. In this dependence, another data problem is encountered because of all the parts of the personnel management field none is so little discussed as termination. Termination of managers for whatever reason is scarcely mentioned in the literature. Indeed, the strong indication is that corporations even show hostility (and certainly are reluctant) to discuss dismissal of managers in formal media communication. Instead, the subject seems largely reserved for corporate hallways and washrooms.⁴⁵

When termination is not "for cause,"⁴⁶ there appears to be no standardization of industry practices. Corporations may initiate complex indirect approaches like making it difficult to see the boss, assignment to a smaller officer, not inviting the victim to meetings, and other ruses intended to hint to the unwanted manager that he should leave. Corporations, it may be inferred, prefer to have a manager resign or move on to bigger opportunities.⁴⁷

Little is known about methods or policies for choosing which managers will be fired because "it all comes down to the fact that firing is an unpleasant business. Managers avoid it whenever they possibly can, to the detriment of their companies. Sometimes you get the feeling that everybody in management is primarily concerned with protecting everybody else."⁴⁸

The result of this reluctance to dismiss managerial personnel is several-fold. First, a generation of future managers now in college or on the way up will collide with this relatively large and immobile group occupying the middle levels of the corporation. Second, the effects of the economic growth of the 1960s was that many managers moved up faster than they could acquire the necessary skills and self-confidence to operate successfully. As a result they received stays in advancement, demotions, or were put on the shelf for the rest of their careers. They were not, however, dismissed: "The number of executives who were once very mobile but who now sit on

shelves is fantastically large. Estimates at this time suggest that the number of shelf-sitters in a large industrial corporation is three to five times as great as it was in the early 1950s."⁴⁹ Third, the organizational structure is out of kilter: There is a "girth-apex shape of the corporation....The number of managerial employees has increased faster than the number of nonmanagerial employees and executives at the top. In terms of relative growth rates, the corporation cannot be represented by the usual pyramid. The relative increase in the number of managers...requires that we describe the corporation by the profile of a light bulb in which the widest part (girth) represents middle management."⁵⁰

What does happen to these fence-sitters and shelved managers? One speculation is that during a major economic recession, the corporation is forced to delete from the rolls vast numbers of shelf-sitters, and to acquire from all who remain greater degrees of skill and proficiency.⁵¹ Though this speculation was written in 1967, today we can see that in the wake of the depression of the mid-1970s the growth in unemployed men who might be termed middle managers has increased to the point where it has achieved national prominence, particularly with respect to the overqualified and over-age in job.⁵²

The data are, on the one hand, sketchy. The qualitative data suggest that the recent apparent increase of unemployed managers in their late 40s and 50s is an example of industrial house-cleaning. On the other hand, quantitative unemployment data are inconclusive. For the 45 year and older group of managers (those among whom the shelf-sitters may be presumed to appear), the rate of unemployment was relatively stable in the ten-year period 1966-1975,⁵³ a period marked by recession as well as prosperity.

That recession or depression periods are used to get rid of some of these shelf-sitters is also suggested by a recent study which zeroed in on a sample of unemployed middle-aged managers.⁵⁴ The total sample size was 115 and these personnel had become unemployed in the recession of the early 1970s.

All respondents were male. Their average age was 50.8 years. Forty-six percent were in their forties, 50 percent were in their fifties, and only 4 percent were age sixty or older. Mean years of education completed was 16.2, roughly equivalent to a college degree. Twenty-three percent did not have a college degree, 36 percent had a bachelor's degree but no graduate training, and 41 percent had at least some graduate training... Sixty-seven percent of the respondents had been displaced from their previous jobs by technological or organizational change, mergers, or economic cutbacks, while another 19 percent had been dismissed or retired involuntarily. Only 14 percent were job seeking because they had resigned from their positions or because they had voluntarily retired for some period of time before deciding to reenter the labor market.⁵⁵

Regardless of the reasons given by the sample population, the works of Dyer, Michael, and Stryker suggest that the technological factors were secondary. These factors were merely a convenient reason, but not the real reason, for terminating personnel who were no longer of use to the corporation.⁵⁶ The real reason remained unstated and the available data are so sketchy that it is difficult to infer anything with certainty.

Another related and important aspect of retention is retirement. A proper retirement system is necessary to provide the vacancies (other than by company expansion) needed to give rising young managers promotion opportunities. Denied this opportunity they will leave. Nevertheless, industry practices have been firm-specific and erratic. Though the Social Security system encourages retirement at age 65, industry was not bound to do so. It was common for many companies until late in the 1950s to have no retirement policy at all.⁵⁷ Other companies used the Social Security system to encourage retirement for lower level workers and managers but not for higher levels. "A case in point is Anaconda Copper Mining Company. In 1955, Anaconda had no mandatory retirement policy. It was up to the executives themselves to initiate their retirement. The result was superannuation. ...the chairman and chief executive officer was eighty years of age...[the president] was seventy. Two vice-

presidents were seventy-six and seventy-three, other top officers were in the mid-sixties...."⁵⁸ At Scott Paper the chief executive stayed on so long that "eleven executives were retired before they could become president and six high-level executives simply left for more mobile situations rather than wait until the log jam cleared up."⁵⁹

Other companies were in similar positions. The need for change was obvious and mandatory retirement policies were established to help curtail these log jams at the top. In 1961 the most common mandatory retirement age was 65. But by 1969 the trend was 63; and some corporations, including Shell Oil, set the age at 60.⁶⁰ These mandatory retirement plans were necessary because "in many industries, particularly those with histories of spectacular growth...a major clogging at the top usually occasioned a steady stream of men to the outside. As a general rule, the younger, more competent executive whose route ahead was blocked was more apt to leave."⁶¹

In companies where stagnation at the top is a problem, managers leave in large numbers at about 34 to 45 years of age from levels commonly called middle management; they leave at about 40 to 45 years of age at the edges of the executive level. Thus firms must manage the mobility of the superiors, to permit the development of routes along which younger managers can move. In other words, the development of more talented executives requires that they be managed differently while at the lower and middle levels of their career,⁶² and that policies be adopted which allow steady movement upwards.⁶³ Retirement plans and policies are an overall part of that process.

Given that the retirement system, dismissals, resignations, and other causes create vacancies, it is only natural to inquire how they are filled. In other words, what about promotion? Two statements can be made with virtual certainty: first, there is no literature on industry promotion which allows us to deduce the development of the process; and second, industry practices are not uniform. Indeed, the method of promotion, if there is any, is company-specific and can range over at least four major alternatives.

These alternatives range from a self-nomination system,⁶⁴ to a cadet system used by Consolidated Edison,⁶⁵ to "each member of the [Armco] management team was responsible for training and developing a replacement for himself,"⁶⁶ to Radio Corporation of America's "basic philosophy [for a] management development program and a definite procedure to be followed in making selections,"⁶⁷ to an internal "help wanted" advertisement published by Texas Instruments.⁶⁸

On the basis of available evidence, "promotion from within still tends to be the rule for middle-level line management positions."⁶⁹ In addition, in many companies these single-level promotions are made without reference to the personnel system; an individual's boss (after checking with his boss) promotes him when a vacancy occurs. In other companies, however, a conscious attempt has been made to break the promotion process into several parts and to involve more than one superior in the process of selecting the person ultimately promoted into that vacancy. The reason is to abrogate the Peter Principle, i.e., that everyone is ultimately promoted to his level of incompetence.

In some companies such as Uniroyal⁷⁰ where the business is relatively stable, there is a conscious attempt to have a rapid promotion process for selected individuals. These companies want to be able to replicate the existing top management so they try to have two, and often three, replacements always ready and available for each top executive. Their process is designed to force a relatively large number of selected high-potential young people rapidly through the organizational hierarchy until they reach a certain level of middle management. Here they are reviewed and their capabilities assessed and those chosen for further development receive special grooming from top management. In one company, First National City Bank of New York, this is the "fast track" in the bank's four-track staffing system for managerial jobs.⁷¹

There is probably no single reason why a company develops a given system of promotion replete with performance reports, "fast tracks," and the like. Most companies anticipate that their business cannot

stay constant and will change markedly in a highly uncertain future. Therefore, their expectation is that the young people in their promotion programs will have a significant impact later on as the business and organization for it change. The correctness of their choice may mean success or bankruptcy, so they deliberately hire many so they can choose the few upon whom they place the hopes for the future. In this they are no different than the military but as we shall see probably not as well organized.

RETENTION AND ALLIED ISSUES IN THE MILITARY

The previous discussion has indicated that retention rates prior to five years of service are roughly similar for the military and for industry. However, nothing has been said about retention rates for the officer equivalent of middle management--the major to colonel group who have what amounts to tenured positions. The regular officer may stay for up to 30 years of service and the reserve officer for up to 20 years of service (and more if selected for retention).

A recent study of Air Force officers shows that the average major completes 20 years of service; the average lieutenant colonel completes 24 years of service; and the average colonel completes 26 years of service. This conclusion is supported by the composition of the officer grade structure. A graph of the grade structure of the Air Force would show (like the industry data cited earlier) a "bulge" in the middle-management grades.⁷²

There are, of course, good reasons for these average Air Force officers to retire at the years of services indicated. The promotion policy and pay schedules are such that officers perceive themselves as unable to be promoted for some reason while simultaneously having reached a step in pay that is the maximum they can attain. They presumably reason that they can advance no further, so if an opportunity in civilian life presents itself, they accept it.⁷³

The available evidence suggests very strongly that retention in the middle-management level is similar for both the services and industry. However, in the absence of data for the Army and the Navy,

one cannot make a firm conclusion even though it may be supposed that the experience of all the services is the same at these officer ranks because the incentives package is virtually the same in all services.⁷⁴

There is one marked difference between industry and the services: the retention of flag officers. In these grades there is no movement from one service to another. The flag officer stays with his original service whereas, as noted earlier, there is a growing trend for top executives in industry to move from firm to firm dependent upon the offers made to them. Thus, the top-level executive may work for several firms and in several industries during the course of his career. Such is not, and almost cannot be, the case for the flag officer in the military.⁷⁵

In other aspects of retention there are sharp differences between industry and the services. This is particularly true in the case of dismissal policies. Here the service system is explicit and a matter of legislation whereas in industry the subject is a virtual taboo. The service system is the up-or-out system contained in the Personnel Act of 1947. The military dismissal system of today is actually two policies--the first applies only to regular officers according to their permanent grade in accordance with the Officer Personnel Act of 1947; the second, although not specified by law, came about as a consequence of the Officer Grade Limitation Act (OGLA) of 1954 and applies only to reserve officers according to their temporary grade. Regular and reserve officers who fail to be selected to permanent captain, major, or lieutenant colonel are involuntarily separated from the service or, if eligible, retired.

Other provisions of the law allow separation for acts of misconduct. Generally, however, these dismissals are few compared with dismissals under the up-or-out policy.

The effect of the up-or-out system is to provide continuous promotion opportunities for officers in lower ranks to progress to higher ranks. Moreover, since general officers face mandatory retirement at specific ages, a supply of these openings is also

available. This mobility has not always been the case--it has depended on Congressional actions concerning promotions. It is, therefore, relatively easy to trace military methods⁷⁶ but there is no way to trace industry practices simply because there is no industry-wide system. Industry promotion policies are as diverse as the number of different companies.

The first Congressional promotion legislation applied to the Army and was preceded by War Department regulations. The first such regulation for the promotion of officers was an "order of the Secretary of War, dated May 26, 1801, which declared 'promotions to the rank of captain shall be made regimentally, and to the rank of major and lieutenant-colonel in the lines of artillery and infantry, respectively.' This order was supplemented by another, issued on May 7, 1808, making the above rule for promotion in the infantry and artillery applicable to the cavalry and riflemen."⁷⁷

The two provisions cited above were executive orders of the Secretary of War. The Congress took its first action on promotion in the Army in the Act of 26 June 1812.

The fifth section of that Act stated:

And be it further enacted, that the military establishment authorized by law previous to the twelfth day of April, one thousand eight hundred and eight, and the additional military forces raised by virtue of the act of twelfth of April one thousand eight hundred and eight, be, and the same are hereby incorporated; and, that from and after the passing of this act, the promotions shall be through the lines of the artillerists, light artillery, dragoons, riflemen, and infantry, respectively, according to the established rule.⁷⁸

The rule referred to is the one established by the executive order of the Secretary of War so the Act of 1812 served to legalize it. This unwise rule caused a stagnation in promotions because during these days of regimental promotion, it was hard to rise when four lieutenants in a company had to wait for a captain to be promoted, retire, or die.⁷⁹ Prior to the Mexican War "promotion was so slow that a lieutenant had little hope of ever becoming a captain."⁸⁰

Some changes occurred when during the Civil War "an officer below field rank had to pass, under a board of three seniors, an examination of proficiency before he could be promoted."⁸¹ Nevertheless, during the Indian Wars a lieutenant was able to write, "I could not possibly be promoted to captaincy under fifteen to twenty years from now...in other words, after a period of thirty years, at least, as a lieutenant."⁸² It was not until the Act of 1 October 1890 that remedial action was taken. That act provided that "Hereafter promotions to every grade in the Army below the grade of brigadier-general, throughout each arm, corps, or department of the service, shall, subject to the examination hereinafter provided for, be made according to seniority in the next lower grade of that arm, corps, or department."⁸³

The replacement of regimental promotion by branch promotion provided more flexibility, but promotions were still slow within the various branches.⁸⁴ Additional flexibility was provided by the wording of the Act of 4 June 1920: "For the purpose of establishing a more uniform system of promotion of officers, based on equity, merit, and the interest of the Army as a whole, the Secretary of War shall cause to be prepared a promotion list on which shall be carried the names of all officers of the regular Army...below the grade of colonel, except certain officers [specialists] hereinafter specified."⁸⁵

An exception was needed later in recognition of special problems associated with the new growth of the United States Army Air Forces during World War I and its size as retained after the war. The Congress thus permitted temporary promotions beginning with an Act of 2 July 1926:

...The Secretary of War is hereby authorized to assign, under such regulations as he may prescribe, officers of the Air Corps to flying commands, including wings, groups, squadrons, flights, schools, important air stations, and to the staffs of commanders of troops, which assignment shall carry with it temporary rank, including pay and allowances appropriate to such rank, as determined by the Secretary of War, for the period of such assignment: provided, that such temporary rank is limited to two

grades above the permanent rank of the officer appointed: provided further, that no officer shall be temporarily advanced in rank as contemplated in this section unless the Chief of the Air Corps certifies that no officers of suitable permanent rank are available for the duty requiring the increased rank: and provided further, that no officer holding temporary rank under the provisions of this section shall be eligible to command outside of his own corps except by seniority under his permanent commission.⁸⁶

Temporary promotions solved part of the problem for the U.S. Army Air Forces. However, the rest of the Army still had its promotion by seniority, although now all officers were on one list rather than on branch lists. This avoided the demoralizing fact that two contemporaries in different branches of the Army could be separated by several ranks--one could be a major and the other could be a lieutenant or a captain.

Even the single list inhibited promotion. Seniority was the only criterion; and General Eisenhower noted in 1947 that "...no argument would have to be presented to show that our promotion system has been unsatisfactory. Until we got to the grade of general officer, it was absolutely a lockstep promotion...."⁸⁷ In recognition of the need for more promotional opportunities, the Act of 1947 provided for a selection system, promotion below the zone, and established the foundations of the present system. The system legislated in 1947 is still in effect today.

The whole range of the retention issue is related to a good system for ensuring an orderly creation of vacancies into which aspiring and ambitious men may be promoted. Aside from voluntary retirement, death, resignation, dismissal, and severe illness, the three methods for creating such vacancies are up-or-out, expansion, and forced retirement. The up-or-out system has not, historically, created sufficient vacancies to ensure an orderly progression of promotions in either industry or the armed forces. Expansion is a limited option in the armed forces and is almost always associated with war. Since this type of expansion is both undesirable and unpredictable, only the retirement system remains.

The efficacy of a forced retirement system has always been obvious to the services. The spectacle of superannuated flag officers and senior colonels at the beginning of our wars (including World War II) has been something of a scandal and has been discussed earlier in this report. The visible defects of elderly commanders unfit for field duty and combat were a constant agitation for a retirement system. Nevertheless, prior to 1855 no retirement system existed in either the Army or Navy. In that year, however, the Congress, persuaded of the necessity for cleaning out the upper ranks of the Navy, created a "reserve list" for officers incapable of duty. In 1861 Congress approved a continuing scheme of compulsory retirement of Army and Navy officers for incapacity and introduced the first provisions for voluntary retirement. Subsequent legislation in the 1860s and 1870s required the compulsory retirement of naval officers at the age of 62 and attempted to stimulate voluntary retirements by increasing retirement benefits. Legislation in 1862 and 1870 provided that Army officers could be retired on their own application after 30 years of service or by compulsion at the discretion of the President. Mandatory retirement at the age of 64, a reform long advocated by professionally minded officers, was finally enacted by the Congress in 1882.⁸⁸

The system of retirement now in effect derives from the Officer Personnel Act of 1947 and permits retirement after 20 years of service (for both officer and enlisted man). As noted earlier, the incentives and tenure provisions are such that many officers are separated or retire before their mandatory retirement point. Thus, 23 years of service is more nearly the norm. It was foreseen by the Congress⁸⁹ that not all officers would stay in the service until their mandatory retirement points. At the time, however, the magnitude of the costs involved was not foreseen. As these costs have now become clearer, there is a growing chorus of dissatisfaction with the present system. This factor aside, the system does create vacancies in sufficient numbers to eliminate much of the discontent with promotional opportunities, particularly of the type which existed prior to World

War II and during the Army's "Dark Ages." In this sense, the retirement system accomplishes one of its primary purposes.

Another aspect of the retention problem is called turbulence in the military and became a factor during the Korean War. The term described quite accurately the fact that many officers were being given permanent changes of station (PCS) as often as once each nine months.⁹⁰ Not only did turbulence cause officers to leave the service, but the situation was exacerbated by the transportation costs involved. Ultimately the Congress specified that there could only be one PCS per year, although the secretary of each service could certify that certain moves in excess of that number were necessary for the good of the service.⁹¹

In any case, the concern of the Congress over the cost was matched by their concern that many officers were leaving the armed forces for industry where geographic stability was judged to be the rule. The grass, however, only looked greener because industry had its own turbulence problems: In a large industrial corporation, a partial mobility audit revealed a very high degree of geographic mobility among all levels of managers. In one particular case, a manager had been moved geographically three times in five and one-half years. The president thought that this was too much, and directed that for one year no geographic moves could be approved at any level without the highest superior checking with him personally. A week later, the executive vice president died suddenly, and to replace him some 100 moves were eventually recorded that were directly attributable to the death of this top executive. It is ironical that the manager in question was moved again, making it four times in six years.⁹²

Managerial/executive turbulence is not limited to a single corporation and is widespread.⁹³ It is now an established fact that most managerial jobs can be learned in one and one-half to two years.⁹⁴ From then on the manager is, in effect, working at only part efficiency and it is time for him to move. The manager on the way up moves often and frequently.

The average president...spent no more than three years in the technical/nonmanagerial stage. One-fourth of them were spotted and elevated within a year and one-half, and one-fourth were spotted within three to four years and elevated into the entrance stage. The average relative time is one and one-half years for the most mobile, two to three years for the normal, three to four and one-half years for the slowest. A future president moves through positions in middle management fast, and he moves sideways frequently.⁸⁵

This is tempered, naturally, by the observation that some managers reach a peak and are placed on a shelf where they hang on for long periods of time and are counterturbulent.

THE TRAINING PROCESS

One of the persistent beliefs in America and, indeed, in most of the western world is that soldiers and officers are little given to intellectual pursuits. Like so many popular views the evidence shows this one to be essentially false. Instead, a persistent theme in the development of the armed forces as they exist today has been the necessity to educate officers⁹⁶ to be prepared for the awesome responsibility which the battlefield imposes on leaders.

It is possible, of course, to argue that the real motive in military educational institutions is not truly educational and scholarly and that officers do not get a valid academic education. Nevertheless, the record shows that the founding of West Point in 1802 established the concept that formal education and training were prerequisites for an officer--long before industry adopted a similar view for its managers.⁹⁷

...prior to 1835 West Point exercised a formative influence over the development of technical education in America. A majority of the nineteen engineering schools established before 1870, including those at Harvard and Yale, had direct pedagogical affiliations with the Military Academy.⁹⁸

West Point and the other academies are but one element of the system; there are also schools of application and technique. True

professionalization of the Army and establishment of schools for formal training in every branch of the military arts and techniques took place after the Civil War. Its guiding figure was General William T. Sherman.

Sherman was "particularly aware of the importance of military education;" and he "espoused a complete system of military education in which West Point would furnish both the preliminary liberal education required of any professional man and the indoctrination in military values and discipline required....Advanced schools would give the officers the specialized knowledge of their profession and prepare them for higher posts."⁹⁹

The advanced schools are the top element in officer training. Today they include a War College for each of the services and a National War College geared to tri-service as well as governmental agency students. In addition, the Armed Forces Staff College at Norfolk provides a tri-service school at a level below the War College.

The newest of the services, the Air Force, has raised the education level of its officers by creating the Air University, which until very recently was "a major command of the United States Air Force,"¹⁰⁰ commanded by a lieutenant general. The school catalog contains such diverse courses as "the Chaplain Orientation Course [which] consists of five two-week classes per year [for] qualified clergy appointed in the reserve of the Air Force in the grade of captain"¹⁰¹ to the War College designed "to prepare senior officers for high command and staff positions...with emphasis on effective development and employment of aerospace power."¹⁰²

With this system, by the time a man reaches the rank of general or admiral in the armed services he will almost certainly have had the following training:

- o A college degree.¹⁰³
- o A course of six to nine months duration as a junior officer.
- o Several one to four week exposures to specialized schools-- guerrilla warfare, parachute training, gunnery, etc.

- o A course at a service Staff College. Only about half of all officers are selected.
- o A course of one year at a War College. Only about one fourth of all officers are selected.

The military system of schooling is formalized; selection procedures are methodic and attendance is a duty. In addition, there is intense institutional support for the kind of training received, as revealed most positively in the promotion lists--advancement to flag rank is exceedingly difficult without a diploma from a War College. Such opposition as there is to the time an officer spends in such endeavors is muted and almost certainly not held by any large group of officers.

By contrast, educational opportunities for industry managers and executives after being hired are markedly less both in quantity and formality. Successful managers on the average acquire 600 hours in development programs from the time they leave college to the time they become presidents.¹⁰⁴ This amounts to a total of about 20 weeks of instruction (assuming six hours of actual instruction in a day). A simple interpolation indicates that the average industry middle manager has received far less instruction than his military counterpart at each comparable stage of development, be it junior manager, middle manager, or executive.¹⁰⁵ This would make it appear that industry is less impressed with education as part of the training process after hire.

This year [1970] alone an estimated 3,500 executives will be going back to school....The majority, moreover, will be at or near the senior management level...nonetheless, the more money corporations spend to send their executives back to school, the more vocal the criticism seems to become.¹⁰⁶

Some firms adopt a moderate position and accept some aspects of training for middle managers: "although there is uncertainty as to the specific merits of executive programs, large enterprises have readily accepted the idea of sending their junior executives back to school."¹⁰⁷

In-house educational programs are criticized as being ineffective in keeping trainees with the company. For instance, a 1965 view states that nearly 179,000 graduates "will enter the special management training programs of 3,000 companies across the land....The companies spend an estimated \$1.4 billion a year on these management training programs. Yet--if recent experience is any guide--within five years, at least half...of the graduates will quit."¹⁰⁸

The reasons are varied. A dropout from NBC is disillusioned: "we sit at calculators like clerks, going over budgets for TV shows," and at Bell Systems, "There was nothing for me to do."

Another reason may be that the programs themselves are of varying excellence. "General Electric...uses a formal training program...a trainee spends between one and three years learning every aspect of his field, rotating on jobs and attending classes at night....American Telephone & Telegraph uses the on-the-job system...a trainee...has a year to learn how to handle the job.... IBM...is a balanced program...bursts of classroom activity, and then...into the field for sixteen months....General Motors...actually runs a four-year college [from which it] gets 1,800 new engineers a year...."¹⁰⁹ Associated with these different systems is a final reason, "companies have failed properly to integrate with the later pace of advancement in the company...they train us to become aggressive. But what happens five years from now when we are up for middle management jobs? There are guys here who have been around for thirty years. The rest of the company will move at its usual pace. I'm not sure there will be openings."¹¹⁰

There is, unfortunately, no general industry position on the value of these training programs except the indirect inference which can be drawn from the fact that they still exist. Whether this is an indication that industry thinks them to be good or merely that industry is in a circle of habitual action kept going by inertia is difficult to ascertain from the literature. It does seem that industry's system of training is less organized and is probably less mission-oriented than is the military system. This statement must of

course be tempered by the realization that some of the very large companies such as IBM and the car manufacturers do have large and variegated programs to train not only their own personnel but also technical-level training for their distributors and maintenance personnel. In addition, the balance sheet is a stern indicator of a manager's worth.

In some of the large (but not "very large") companies, the training plans are in no sense as comprehensive as one finds in the military. For instance, Humble Oil and Refining Company undertook a two-year study immediately after World War II to determine the best way to assure an adequate supply of potential managers and executives. The result was the adoption of two programs for executive development. The first program involved sending high-level managers to the Advanced Management Program at Harvard University; the second was a course of five days duration conducted by the training division of the Employees Relations Department--it was actually instructed by operating management.¹¹¹

Another large company apparently places less stress on training through education than on a potential manager's learning by doing.¹¹² Litton, after a study of the "policies, formal programs, informal approaches, and practices of manufacturing companies known or believed to have an effective method of developing men for responsible management positions," concluded that "the most effective way of developing administrators is through the performance of the day-to-day requirements of the job."¹¹³ This is, of course, the military's OJT (on-the-job training) which is, however, backed by the formidable training system described earlier rather than by a coach, the responsible trainer in the Litton article.

The preceding paragraphs add up to the conclusion that there are as many views on training managers for a firm as there are firms.¹¹⁴ This is in sharp contrast to the extensive, formal, and excellent system of military training.¹¹⁵

The military has been in the forefront of introducing simulation as a training technique. There are two forms: the first is a machine

of some sort and the second is a game or situation in which the players play a contrived (but hopefully useful) scenario. Examples of the first were typified during World War II by the Link Trainer and the Celestial Navi-Trainer. However, industry had difficulty in adopting this concept largely because of the time, cost, and equipment required to establish the necessary testing apparatus.¹¹⁶ Today machines of this type are used by large airlines and larger manufacturers have introduced simulators to help in their training programs. Examples of the second type are the well-known war game Maneuver and the FTX (field training exercises for officers but without troop unit participation). Simulation is used by General Electric, Pillsbury Mills, Standard Oil of New Jersey, IBM, and Westinghouse, among others.¹¹⁷ Note, however, that industry observes its managers under daily stress conditions and the profit and loss statement shows a manager's worth.

Training is one facet of a more complicated issue--is there some preferred set of training and experience which leads to the top positions in industry and in the military? There is no doubt, for instance, that in the military the highest positions are held by combat arms officers in the Army, rated pilots in the Air Force, and those who have commanded ships in the Navy.¹¹⁸ The nongeneralist finds it difficult to reach flag rank; and even if he does, the number of such billets is limited in comparison with those available to the "combat" officer. Even the "generalist" finds, however, that some routes apparently provide more opportunity--thus in the 1950s it was widely "understood" that those in the Army with parachute wings had a desirable ticket in the fight for higher rank. Each service undoubtedly has had similar tickets at times. Here we encounter another surprise when considering whether industry has similar practices.

An American dream has been the ability of the office boy to become president of his corporation on sheer merit, perseverance, and pluck. It is, therefore, both surprising but pragmatic to discover that industry has a set of unwritten rules similar to those

in the services. The literature supports a view that in every corporation there is a particular route to the top, with marketing or production being generally favored.¹¹⁹ In some large corporations there are "tracks," some of which are clearly not capable of leading to the top. Only one "track" can lead to the presidency.¹²⁰

The same route is not used by all companies, and some companies may change the route (on reorganization to emphasize a new product line, for example),¹²¹ but once established it endures for long periods of time. Charles Pfizer and Company allowed John E. McKean in 1949 to defy the production route in that company by coming up from a sales background. This individual turned Charles Pfizer from one of the smallest pharmaceutical houses in 1947 to the largest in 1964. McKean was a routemaker and had the authority to sustain marketing as the key to higher promotion. A new route to the top was created when the tractor division of Allis Chalmers Manufacturing Company provided the second chief executive of the company in a row. The new chief executives were the first presidents who had not come from the capital goods division.

Statistics indicate that marketing and sales produce more presidents than accounting, finance, personnel, corporate law, or manufacturing. In one of the largest corporations, IBM, it is widely understood that the route to the top can only be through sales,¹²² a strange turn of events for a corporation which has become a household word because of technology. Together, marketing and manufacturing produce 41 percent of the presidents. On the other hand, as R&D budgets have increased, so have the people at the top; they now number about 18 percent and are increasing in number, but data are insufficient to show a trend.

The route to the top now seems to involve multinational orientation. In the period from 1948 to 1953, few presidents had three or more years in foreign operations. By 1966, one out of three presidents had been three years or more in foreign subsidiaries or divisions.¹²³

From 1948 to 1953, only 25 percent of the presidents had more than five years in staff assignments. Today, only 25 percent of the

presidents have had less than five years during their managerial career in staff work of some kind. It is no longer believed that only line managers provide presidential stock.¹²⁴

Like many myths, the one of the office boy's advancement to president of the corporation has elements of truth. Unfortunately, in today's world the office boy's aspirations rarely come true unless he is a college graduate and is, moreover, on the right "track" in his particular corporation.

NOTES

1. Ling, op. cit., p. 469.
2. E. E. Jennings, Routes to the Executive Suite, McGraw-Hill, New York, 1971, p. 273.
3. M. J. Doohar and E. Martin, Selection of Management Personnel, Volumes I and II, American Management Association, New York, 1957, p. 302.
4. National Industrial Conference Board, Oakbrook, Ill., Executive Development Programs in Universities, Report No. 215, pp. II-VI.
5. See National Industrial Conference Board, Personnel Administration: Changing Scope and Organization, Study No. 203, 1966, Executive Summary at the beginning of the volume; also M. S. Bolster, "The Strategic Deployment of Exceptional Talent: An Account of the Career Executive's Roster's Short History," Public Administration Review, December 1967, pp. 446-451; Ling, op. cit., p. 469; Los Angeles Times, Section III, 24 October 1977, has a brief report on increased demand for executives.
6. National Industrial Conference Board, Corporate Organization Structures: Manufacturing, Report No. 598, is the source of these data except for General Motors. The source for General Motors is Standard and Poors, Register of Corporations. All personnel data must be presumed to be approximate.
7. All strength data are from Statistical Abstract, op. cit., series Y904-916, p. 1141.
8. Gowan, op. cit., p. 83. The specific firm is not identified by Gowan, but the study included firms like Eastman Kodak, General Electric, B. F. Goodrich, and National Cash Register.

9. Dooher, op. cit., p. 381. See also R. G. Shaeffer, Staffing Systems, Managerial and Professional Jobs, National Industrial Conference Board, Report No. 558, 1972, p. 38.

10. Ibid., p. 196.

11. Dooher, op. cit., p. 416.

12. Ibid., p. 405. On p. 190 it is noted that a survey of 62 company presidents indicated a feeling among 50 of that group that a definite and systematic program of executive selection was needed. This was borne out by the fact that 10 to 20 percent of vacancies were being filled by outside recruitment. Yet most of these presidents reported that they had no formal selection program and were using no new methods. L. Kaufman, "The Suitability of Retired Army Officers for Middle Management," Ph.D. Thesis, University of Southern California, January 1964, p. 122, states that "a very large percentage of [the 147] companies (89.2 percent) filled at least half of their middle-management positions by promotion from within." See also Shaeffer, National Industrial Conference Board, Report No. 558, passim.

13. Huntington, op. cit., p. 199.

14. R. F. Vizza, "A Study of Education and Formal Management Training of Chief Sales Executives of Large Industrial Goods Firms," Ph.D. Thesis, New York University, 1967, p. 28. His source was, in turn, the U.S. Office of Education.

15. Ibid., p. 37.

16. Ibid., p. 33.

17. Ibid., p. 37.

18. Dooher, op. cit., p. 17.

19. Ibid.

20. Ibid., p. 257. Shaeffer, National Industrial Conference Board, Report No. 558, Chaps. 5 to 8.

21. Ibid., p. 272. Shaeffer discusses Macy & Co., Uniroyal, Citibank, and AT&T.

22. Dooher, op. cit., p. 301.

23. Shaeffer, op. cit., p. 38.

24. E. E. Jennings, The Mobile Manager: A Study of the New Generation of Top Executives, University of Michigan, 1967, p. 23. Hereafter referred to as Jennings II.

25. Ibid.
26. Graduate School of Business, Stanford University, Top Management: A Research Study of the Management Policies and Practices of Fifteen Leading Industrial Corporations, McGraw-Hill, New York, 1968, p. 283.
27. Stanford University, op. cit., p. 234.
28. Mahler, op. cit., pp. 141-150.
29. "The Revolt of Middle Managers," Dun's Review, September 1969, p. 40.
30. See a brief article under the by-line of Elizabeth M. Fowler, "Careers, The Growing Demand for 'Job Hoppers,'" New York Times, 10 November 1975, Financial Section, for an indication that the mobility trend is moving to lower executive levels. See also, Los Angeles Times, "Job-Hopping Now Viewed as an Asset," Part VI, 30 October 1977, p. 18.
31. Huntington, op. cit., p. 206.
32. Cosmas, op. cit., p. 148.
33. Ibid.
34. Ibid., pp. 148-149.
35. Military Laws of the United States, 1901, U.S. Government Printing Office, Washington, D.C., 1901, p. 657.
36. In the next pages I have drawn heavily on ideas contained in R. G. Shaeffer, Comparative Staffing Patterns, National Industrial Conference Board Special Report, 1974. Of this study the author says, "One unanticipated benefit...is a methodological advance...[that opens] up many new areas for comparative personnel and organization research...."
37. Ibid.
38. They may be functions of our society, but that question is a study of itself and beyond the scope of this report.
39. Mahler, op. cit., p. 78. Note that Mahler was writing his book in 1962-1973 so this conclusion is relatively current.
40. "Management Training in Trouble," Forbes, 15 June 1965, p. 43.
41. Ibid.

42. Ibid.

43. Air Force Systems Command, Air Force Human Resources Laboratory, Changes in Career Intent During Initial Tour of Active Duty, AFHRL-TR-70-49, Brooks Air Force Base, Texas, December 1970, p. 2. A Navy study by C. R. Fawcett and S. A. Skelton, A Comparative Analysis between Retention of Junior Officers in the Navy and of Junior Executives in Industry, U.S. Naval Postgraduate School, 1965, covers ranks up to lieutenant commander. However, the data are not available by years or by grade so comparisons cannot be made. Generally, they confirm the Air Force data. As of the time of writing, data for the Army are not available.

44. Air Force Systems Command, op. cit., p. 2.

45. The one academic study found in the literature is S. R. Michael, "Industrial Due Process in Conflict Resolution at the Management Level, with Special Attention to Termination of Managers in Large Private Corporations," Ph.D. Thesis, Columbia University, 1967. A less scholarly work is Chester Burger, Walking the Executive Plank, D. Van Nostrand Co., New York, 1972.

46. "Cause" in this sense usually refers to morals, fiscal irregularities, and matters on which there can be little doubt in anyone's mind that dismissal is both warranted and necessary.

47. Michael, op. cit., p. 248. See also Perrin Stryker, "How to Fire Executives," The Executive Life, Doubleday Co., Garden City, New York. He describes "the unavailable treatment" (the boss is always too busy to see the subordinate); "gradual freezeout" (the subordinate's sphere of operations is increasingly limited); and the "bypass" (the subordinate's assistant begins reporting over his head), pp. 187-202.

48. Burger, op. cit., p. 20.

49. Jennings II, op. cit., p. 73.

50. Jennings I, op. cit., p. 274. It should be noted that this is consistent with the findings of the Shaeffer study cited earlier.

51. Seemingly verified in part by the study cited earlier in this section.

52. P. Watters, "Fed Up," New York Times, OpEd Section, 31 August 1976. Watters has a forthcoming book, The Angry Middle-Aged Men, which reportedly treats the discrimination in employment practices against the "middle-aged." A copy is not available as of May 1978. See also Peter Weaver, "Aiding Millions Stuck in the Middle," Los Angeles Times, 31 October 1976, p. 22, which tends to confirm this view.

53. Based upon U.S. Government unemployment data.

54. L. D. Dyer, "Job Search Success of Middle-Aged Managers and Engineers," Industry & Labor Relations, April 1973, pp. 969-979. Also, Roger D'Aprix, "Coping with Company Power," Industry Week, 31 May 1971, pp. 45-49. D'Aprix, Manager of Employee Communications for Xerox, suggests that age is a factor for dismissal and that there is a resultant militancy on the part of managers toward their higher management. Anti-forced-retirement legislation gained ground nationally and was passed as this report was being placed in final form.

55. Dyer, op. cit., p. 971.

56. B. G. Glaser, Organizational Careers, A Sourcebook of Theory, Aldine Publishing Co., Chicago, 1968, does not discuss termination. This collection of individual papers merely discusses "demotion."

57. Thomas P. Bleakney, Retirement System for Public Employees, University of Pennsylvania, Philadelphia, 1972.

58. Jennings I, op. cit., p. 91.

59. Ibid.

60. Ibid., p. 93.

61. Ibid. Yet at the time of writing we see the trend against forced retirement.

62. Ibid., p. 98.

63. See "The Revolt of Middle Managers," Dun's Review, September 1969.

64. Jennings I, op. cit., p. 313, and Dooher, op. cit., p. 272.

65. Ibid.

66. Ibid.

67. Ibid., p. 301.

68. Shaeffer, Report 558, p. 43, gives an example. Captain Charles H. Martin, USAF, "A Comparison of Promotion Practices and Policies in Industry and the United States Air Force," Thesis, June 1966, submitted to the Faculty of the Air Command and Staff College, gives a different formulation but one that is very similar to the methods described here.

69. Shaeffer, op. cit., p. 40. I have drawn heavily upon this excellent study for the discussion of promotion.

70. Ibid., pp. 76-78.

71. Ibid., pp. 91-94.

72. This is not surprising since the model was designed to replicate the behavior of the officer.

73. Glenn Gotz and John J. McCall, "The Retirement Decision: A Numerical Analysis of a Dynamic Retirement Model," The Rand Corporation, unpublished study, gives a technical discussion of these retirement decision points.

74. Pay and retirement schedules are the same.

75. Early in a service career it is theoretically possible to transfer from one service to another. In practice, however, it is extremely rare.

76. Lieutenant William E. Birkhimer, The Law of Appointment and Promotion in the Regular Army of the United States, A Paper Read Before the United States Military Institute, West Point, N.Y., A. G. Sherwood, New York, 1880, is a very scholarly work but unfortunately goes only to 1879.

77. Military Laws, 4th ed., op. cit., footnote on p. 479.

78. Military Laws of the United States, 3rd ed., op. cit., p. 153, italics added.

79. Ganoe, op. cit., p. 159.

80. Ibid., p. 179.

81. Ibid., p. 284.

82. Journal of the Military Service Institution of the United States, Vol. IV, No. XIII, 1883, p. 87. The quote is from an unsigned letter by a first lieutenant of artillery.

83. Military Laws, 4th ed., op. cit., p. 479.

84. There were exceptions. When the coast artillery became a separate branch in 1907, "the increase of officers in that branch was so great that promotion far exceeded that of any other arm for some time. Young lieutenants became captains of artillery, whereas old lieutenants of infantry and cavalry still remained lieutenants." Ganoe, op. cit., p. 428.

85. Military Laws of the United States, 8th ed., 1939, p. 130.
86. Ibid., p. 133.
87. Hearings before the Senate Committee on Armed Services, Officer Personnel Act of 1947, 16 July 1947, p. 1.
88. Huntington, op. cit., p. 246.
89. Personnel Act of 1947, op. cit., pp. 11-13. See the interchange between General Eisenhower and Senators Byrd, Gurney, and Tydings, which shows clearly that the senators foresaw some of the effects of the tenure rules as well as the fact that numbers of officers would retire before their mandatory retirement points.
90. Some Army officers could serve nine months in Korea, nine months in the United States, and then return to Europe or Korea.
91. It immediately became evident that the rule needed numerous exceptions. The list of PCS moves exempted included: attendance at service schools, on promotion to higher rank, medical reasons, unit moves, severe family problems, etc.
92. Jennings II, op. cit., p. 72.
93. Jennings I, passim.
94. Ibid., p. 3.
95. Jennings II, op. cit., p. 8.
96. Training as opposed to education for enlisted personnel was another theme. By the turn of the 20th century, education as well as training received growing attention until today those enlistees who possess higher education receive higher pay by being enlisted in other than a "recruit" status. Karsten, op. cit., pp. 207-209, gives a brief discussion of the limited attempts to educate enlisted personnel and the "dangers" attendant thereto in the 1870-1880 period.
97. Recall that the first business school was not established until 1881 at the University of Pennsylvania. Also see Huntington, op. cit., p. 191.
98. Ibid., p. 199.
99. Ibid. See also Ganoe and Weigley, op. cit., passim.
100. Air University Catalog, 1976-1977, Air University, Maxwell Air Force Base, Alabama, September 1976. This catalog contains 107 pages and in the number of opportunities offered in the educational field is quite remarkable.

101. Ibid., p. 53.

102. Ibid., p. 5.

103. Warner et al., passim.

104. Jennings II, op. cit., p. 20.

105. In a monumental study of managers which involved 12,929 civilian and military executives, it was found that 76 percent of the business executives (managers) had gone to college, whereas 98 percent of the military executives had gone to college; a total of 57 percent of the business executives and 90 percent of the military had degrees. See Warner et al., op cit., Chap. 8.

106. A. A. Butkus, "Should Executives Go Back to School?" Dun's, Vol. 96, September 1970, p. 37.

107. Louis J. Rago, "Executive Training Programs," Advanced Management, Vol. 22, No. 12, December 1957, p. 22.

108. Forbes, op. cit., p. 43.

109. Ibid.

110. Ibid., p. 44.

111. H. M. Larson and K. W. Porter, History of Humble Oil and Refining Company, prepared under the auspices of the Business History Foundation, Inc., Harper and Brothers, New York, 1959, pp. 619-622, gives more detail.

112. Myles L. Mace, Vice President, Litton Industries, Developing the Executive of Tomorrow, General Management Series No. No. 186, American Management Association, New York, p. 23.

113. Ibid., p. 20. In a budget crunch the first casualty is training. This point was verified in discussions with Lockheed Corporation training personnel and with members of University of Southern California School of Business Administration during the week of 25 April 1977.

114. See, inter alia, "How Emery Air Freight Develops a First-Rate Second Team," Business Management, Vol. 34, August 1968, pp. 53-56; James L. Green, "Role Playing Helps Pick a Chief," Personnel Journal, No. 37, pp. 205-208; Steven Norton et al., "How One Company Assesses Management Potential," Personnel Journal, No. 50, pp. 48-55; J. W. Winegar, Manager of Training and Development for Xerox, "Personnel Development through VERT," Personnel Journal, No. 45, pp. 355-361; A. C. Dougherty, President of Rockwell Manufacturing, "Managers-to-be are Job Tested," Iron Age, No. 195, pp. 79-81;

Thomas H. Patten, Jr., "Organizational Processes and the Development of Managers: Some Hypotheses," Human Organization, Vol. 26, No. 4, Winter 1967, pp. 242-255; "How Top Retailers Build Executives," Business Week, 5 June 1965, pp. 88-96; and H. G. Kuttner, "Executive Development--A Course for Buyers," Stores, August 1969, pp. 43-46.

115. There is, of course, always a dissenting view. See "GAO Scores Military Graduate Education Programs," Armed Forces Journal, 7 September 1970, p. 13. The Government Accounting Office report questioned the utility of graduate education for officers at universities because "many officers were not being assigned to duties requiring their specialized education." The Office of the Secretary of Defense commented that the GAO had been "too limited in its consideration of the utility of education."

116. Ling, op. cit., p. 465.

117. Joel M. Kibbee, "Dress Rehearsal for Decisionmaking," The Management Review, February 1959, pp. 4-8. See also F. M. Ricciardi, "Business War Games for Executives: A New Concept in Management Training," The Management Review, May 1957.

118. At one time a naval officer could not in fact become an admiral unless he had commanded a fleet. See Daniels, op. cit., pp. 283-287, for the views of one Secretary of the Navy on the necessity for this policy.

119. Jennings I, op. cit., pp. 41-45.

120. Shaeffer, Report 558, Chap. 7. The corporation is Citibank (First National Bank of New York). Exhibit 14, p. 84, is particularly revealing.

121. See Top Management, op. cit., p. 245.

122. Conversations with researchers at The Conference Board, Oakbrook, Ill., and with IBM personnel.

123. Jennings, op. cit., pp. 41-45.

124. Ibid., pp. 41-45. However, W. P. Dommer, The Road to the Top, University of Texas, 1965, p. 104, disagrees in part with the general statements above, although his data show that during the period from 1945 to 1960 marketing, production, and finance produced a maximum of 64.2 percent and a minimum of 44.2 percent of the presidents of 500 large corporations.

IX. CONCLUSIONS AND IMPLICATIONS

Any study of military and industrial personnel management must bear in mind the different outlooks of the two groups involved. The military deals with matters of life and death; a military error, whatever its source, almost invariably turns up as casualty on some battlefield. Industry deals in balance sheets and the lives of the workers are seldom at stake.

History reveals this difference in a discernible way. Since the Spanish-American War, the Congress has taken an interest in the management of the officer corps but has paid little attention to the management of industry's managers.

The effect of this congressional interest (even though it may have been for political rather than efficiency reasons) has been largely beneficial in the long run. In the short run, the process has sometimes been frustrating, self-defeating, inconsistent, and even guilty of neglect. Nevertheless, the long-run result is that the military's management of its officer corps has been and still is as good as personnel management in the giant firms of industry and is better than that in the middle and small sized firms.

The long-run effect is recognizable as four trends. All have had an impact on personnel management. The first is the struggle of the armed services to ensure their own survival. The second is the continuously increasing complexity of the military and industrial process. The third is a continual movement toward, or a trend toward, equal treatment and equal opportunity for equal responsibility in the services. The last is a remarkable trend in industry and the military to display the same kinds of issues and problems in the personnel management of their managers/officers.

The generalized distrust of the military exhibited by the Congress and by the American people in earlier days meant that there was a constant push to do away with the armed services altogether. Finally, when the needs of our foreign policy made it imperative that

there be an armed force, the Congress was still in no mood to have either a large force or to spend much money in its maintenance. This gave rise to the problem of how many regular officers would be permitted and where they would be found--the quantity versus quality issue.

There has never been any serious question that the quantity of officers could be provided. Anyone, in the early days of the republic, could raise a company or regiment provided he had the money and could be given a commission in the appropriate grade. In addition, there was widespread favoritism and nepotism in the granting of commissions up to the beginning of World War I. But the efficiency of the officer corps suffered in the process. Thus, there were many attempts on the part of the regular Army to upgrade what was a decidedly weak militia system for the selection of officers. The ultimate result was the creation of two reserve systems--the militia, which was variously named and finally became the National Guard, and the reserves mandated by the National Defense Act of 1916. The reserves created in 1916 belonged to the services and were largely devoid of the politics previously associated with the militia.

Even today there would be no large problem in providing a given quantity of officers--one simply lowers the standard. The maintenance of quality, however, has been the subject of considerable legislation, as described in the body of this work. Suffice it to say that the ROTC system has provided some of the nation's best officers and continues to be a source of trained officers in the face of a national emergency. Its ability to expand rapidly and preserve its high standards is, however, limited because the course involves a minimum of two years and may last as long as four years. The gap in the production line created by wartime demands can be filled by the OCS system, which can produce large numbers of well-qualified junior officers given adequate time and proper standards of selection. Many of these officers, as World War II showed, can, if retained on active duty, continue on to become flag officers.

The final source of officer personnel, the service academies, continue to provide a relatively constant yearly output of graduates who become the backbone of the officer corps. This source, while small, has been a good one for the development of most of the high-ranking officers required. Fortunately, the other sources also produce outstanding personnel who have assumed the nation's highest ranks and have, therefore, prevented any problems which a single source might have created through inbreeding.

The increasing complexity of war and of industry have had a noticeable impact. Both industry and the military have resorted to more complex types of organizations to keep operating at peak efficiency. Thus, in the early days of the nation we see an Army composed of little more than regiments, which meant that the commander only needed a small staff to keep everything under control because the entire line of battle was visible. Similarly, the limited nature of logistics meant that the infrastructure in both the nation and the Army was quite simple compared with what is needed at present. Industry was not more complicated. Up to the Spanish-American War, the organizational chart in a typical industry was little more than two boxes. The upper one was the owner/manager and the lower one was everybody else. Only the railroads were different, and that only because they had become large enough to stretch for thousands of miles and had to resort to something like their divisional system to keep the road running efficiently and safely.

In the military field, the structure became more complex as the armies continued to grow in size. At the time of the Mexican War, the Army had expanded so that it was necessary to introduce divisional organization. To be sure, divisions had existed in Napoleon's army, but American wars had not approached the scale of conflict which he had waged. With the invasion of Mexico, the distance factors and the size of the Army required easier methods of control. The divisional formation gave that measure of control, but it also generated demands for larger staffs. Logistics, in turn, became more complicated and demanded greater proficiency on the part of the quartermaster. In the

Civil War the corps formation was introduced. In addition, the railroad, the balloon, the rifled bore, the telegraph, and the Gatling gun (the precursor to the machine gun) became weapons or weapons-related. Not unexpectedly, logisticians to run the railroads did not exist in the officer corps so industry provided them as well as people to handle the increased communication capabilities needed. In each succeeding war, the complexity factor was instrumental in creating a demand for new kinds of officer skills and naturally led to a demand for more careful management.

The problem in the Navy was similar except that it was longer in developing. For its first 70 years, the Navy consisted of individual sailing ships which needed only a master and a mate to sail and to control the crew. Rarely did more than two or three ships sail together and there was no fleet in the sense of the grand fleets which fought in the Spanish-American War and the two World Wars. There was no justification for an elaborate rank structure or formal training system since a Navy could be created overnight by issuing letters of marque or by buying and arming merchant ships. The requisite personnel could, in turn, be signed on from the numerous merchant vessels of the day--or impressed from the merchant fleet.

This was changed, of course, with the introduction of the two Fultons, the first steamships in the Navy. This event highlighted the problem of the specialist in the armed forces. Simply stated, the average line officer neither understood nor cared to understand the intricacies of the steam engine which kept his ship running whenever there was not enough wind. The naval officer viewed himself as a fighter, not an engineer. Yet progress could not be stopped and the Navy continued to become more complex, whatever the old salt felt. Finally, Theodore Roosevelt mandated that every naval officer would also be an engineer, and the required courses were introduced into the curriculum of Annapolis. Yet, the specialist versus line argument persists to this day.

The movement toward equality of pay for equal rank and equal responsibility probably surfaced in the Seminole Wars when the captain

of a ship (and not fighting) was receiving more pay than the Army officer who was commanding a fort engaged in combat with an enemy. There was also a lack of promotion opportunity. These problems ultimately led to so many resignations that the Secretary of War in his message to the Congress in 1835 recommended an automatic increase in pay for those who had been in the service for a given number of years. A form of longevity pay was passed in 1838 and is now a standard feature of the pay structure for all services. It serves in a sense as a tradeoff against slow promotion.

The topic of promotion surfaced in a different way in the Navy during its fight to have the rank of admiral authorized. The Congress, in an excess of egalitarian zeal, considered the rank of admiral as "imperial." It refused to authorize the rank until the Civil War, when it became evident that command of a fleet engaged in the blockade of the South was a formidable responsibility, and the command of the various naval campaigns along the Mississippi River clearly carried considerable responsibility on which the outcome of the war might hinge.

Problems with promotion resurfaced in the Army during its Dark Ages when the system of promotion led to unequal treatment among the branches. It was possible for two classmates at West Point to be separated by several grades simply because the rate of promotion in one branch was quicker than in another. The problem was particularly acute, for instance, when a new branch was created and the officers who joined it were granted, of necessity, rapid promotions to fill out the new organizational charts. The resultant change in the promotion system placed everyone on a single list.

World War I made it clear that each service had to contribute to an overall objective. Moreover, each service had to work with the other in close union to achieve the nation's wartime objectives. Under these circumstances, it was imperative that the military services have similar rank structures--that there be an equivalency table between the grades of each service.

The ultimate result of this constant struggle for equality was the Act of 1922, which established improved grade structures among the services. Importantly, a single pay scale was adopted for all of the services. The act meant that equal responsibility received equal rank and equal pay. It failed, however, to assure equality of opportunity for promotion among members of the services who had entered in the same year group.

The Personnel Act of 1947 advanced the principle of equality when it granted to the Army and the new Air Force the right to promote by selection--the system the Navy had been using since 1916. More recently, newly proposed legislation has moved in the direction of establishing a single list for each service. It remains to be seen whether this is practical and feasible.

Another aspect of the quest for equality has been the continual fight between the reserve officer and the regular. In the Army this was the battle between the two armies which has always existed: the regular Army and the army which has been variously called the militia, the National Guard, or the reserves (the latter term being used in its collective sense). This struggle has waxed and waned in intensity, with the militia having the better of the battle until World War I. Prior to that time whenever there was a war, the prize assignments invariably went to the militia in the inevitable expansion which followed. The reason was simple enough--when war was declared the Congress expanded the militia and gave short shrift to the regular establishment. Militia officers were appointed to militia formations and most of the high ranking billets went to them. In many cases, these high ranking militia generals had been West Point graduates or other regular officers who had left the service but were called back at much higher ranks. Grant, McClellan, and others during the Civil War are examples. During the Spanish-American War, President McKinley appointed former Confederate generals to high positions both as a gesture of reconciliation and as a political device to gain support for his administration.

The pendulum, of course, always swings and after World War I the financial situation adversely affected all parts of the Army. The regular establishment was cut drastically as a result of the several depressions, particularly the Great Depression of 1929. The cut in funds severely curtailed training opportunities for the reserves. It adversely affected their opportunities for promotion and even the possibility of receiving a commission, since all parts of the service were reduced in size. World War II and the insistence upon schooling which had grown out of it initially left the reserves out of the main stream of high level schools, which meant that those who stayed on active duty were denied equal opportunity because they had not had the schooling which was a requirement for certain types of staff or command jobs. These assignments, in the subtle interplay of organizational mores, became prerequisites for promotion. Most of these problems were solved for all services by the various acts since World War II. However, an even more subtle form of discrimination against the reservists was introduced in the Act of 1916. No naval officer could be promoted without having commanded a ship in his previous grade. This effectively barred all reservists for higher promotion and assured that the regular Navy would command the fleets during wartime. In the Army reserves no one could hold a rank higher than major. This, too, meant that the regulars would control the higher commands in time of war. These provisions were removed. There are now flag officers in the reserves and in time of war the reservist has equality of opportunity.

The line versus staff controversy is another facet of the fight for equality. In its essential elements, this fight has revolved quite simply around the belief of the line officer that the function of an officer is to fight and not to confine himself to some narrow specialty. This problem is not unique to the military. It has its counterpart in industry, which has come no closer to solving it than has the services.

A new phase of the quest for equality was introduced by the experiences of World War II, the Korean War, and the Berlin Crisis.

When large numbers of reservists were called to active duty in these conflicts, it became clear that civilian and military pay scales were considerably different, causing hardships for those leaving civilian jobs. This resulted in the now-generally-accepted principle that military compensation should be similar to civilian compensation for the same levels of responsibility.

Pay was not the only source of dissatisfaction. There were fewer opportunities for reservists. This led to steps to achieve equality of selection for the higher level schools for all officers, regardless of component.

The last major trend has been the gradual merging of personnel issues in both industry and the military. This finding is, in a sense, against what intuition would suggest: there has been a long held feeling that industry practices were better than military practices, and an incumbent United States senator's personnel legislation states explicitly that military practices lack imagination. The finding should not be surprising, however, if we remember the growing complexity of both the military and industry and the necessity for more and larger types of organizations to handle their affairs efficiently. In this latter sense, the military is merely a replication of society as a whole but with the particular ability to function under conditions of continual crisis in which some or several of its organizational components may be subjected to heavy losses of personnel in very short periods of time. The military must contain almost every type of skill found in industry, everything from the veterinarian to the fire-fighter to the water purifier to the skilled surgeon to the public relations officer to the mechanic to the policeman.

There are, however, two differences between industry and the military. The military officer must wait for a war to prove his ultimate worth--all his service up to that time is in a sense training. The industrial manager operates in his ultimate test day in and day out. Therefore, his worth is more immediately obvious.

The other difference between the industry manager and the military officer is that the employer of the military officer can mandate equality and has the full authority of the court-martial to make the mandate work. In industry the process must perforce be evolutionary because there is no force of tradition or discipline. Therefore the civilian manager either leaves a firm which is unfair or must work within its framework to convince others that changes are necessary and action must be taken. All of those persons must ultimately convince what was in the past an owner/manager but now is a corporate board of directors.

One of the specific issues discussed at some length in this report was the superannuated age of many of the senior officers of the services at the beginning of our wars. It was necessary to relieve large numbers of them because they were simply incapable of physically meeting the rigors of war. Long before the idea occurred to industry, the military instituted the idea of forced retirement to ensure that some standard existed which would say that a given age was too old for a man to be expected to withstand the physical trauma of combat. It was not until a hundred years later that this notion was accepted by industry, but in the meantime superannuated presidents prevented advancement of younger men. These men left their firms to found new companies or to go to others where opportunity was greater. Industrial history is replete with examples of firms which collapsed into bankruptcy because management could not adjust to the times--it was simply too old to be able to meet the physical demands of new competition, in a sense, the industrial equivalent of war. Other companies, Ford Motors is a good example, survived because a son was able to take over from a father in time to repair the damage which had been done.

The retirement problem is related to the issue of training. Long before industry realized the necessity for having a continual stream of trained managers prepared to take over when the older management became a casualty of age, the military realized that to keep functioning under crisis and combat it was always necessary to have a

stream of trained officers ready to assume the responsibilities of those who had become casualties. This produced an excellent system of military schools, maneuvers, map exercises, correspondence courses, and on-the-job training. Industry now has similar types of training but the record is extremely spotty. Indeed, the first casualty of any recession or budget crunch is the money for training, which in some companies is completely eliminated. This is not the case in the military simply because of the ever present realization that war means casualties and the armed forces and the nation which it protects can only continue if there is an adequate supply of trained officers. Training may be drastically curtailed but seldom completely terminated.

Promotion opportunities are another aspect of this same problem. Here again the military system of impartial boards, the elimination of politics from the process, and the creation of complete records via the efficiency report on a given officer's ability have resulted in a system which has been gradually adopted in industry. Though a given industry may have developed the system independently, that there is a confluence of practices is evident.

Long before industry realized the necessity of a personnel management section to handle the problems associated with the management of its managers, the military had established such offices. The first goes back as far as 1815 when the then Secretary of War, Clay, obtained legislation to establish the first staff. The Navy office of detail was a similar organization although it was introduced later. Finally, when the General Staff was established by Elihu Root in 1903, followed somewhat later by the naval equivalent, the staff organization was truly formalized and made specific provisions for the management of personnel. The first recognition in industrial literature that the manager was an important person who also needed to be managed, if a firm was to succeed and continue to exist, was not published until 1918. The lag between the first literature advocating a particular course of action and its actual adoption by industry was on the order of 40 years.

On other issues, industry has taken the lead. The famous Hawthorne Studies during 1924-1933 on motivation have now become classics and have been the basis of many of the insights in both the services and in industry of the importance of managerial attitudes in affecting production. In turn these impinge on important morale questions which the manager must take into account if he is to function efficiently.

Both industry and the military have found that they have a problem between the staff and the line, or its variant, between the specialist and the line. Neither has solved the problem. The specialist and the staff complain that they receive less than their fair share of the higher positions. This rankles because titles and insignia are outward signs of the importance that a man has among his peers. In both industry and the military the privileges that go with rank or title are those intangibles which frequently inspire men to excel in their drive toward "success."

A common misconception in the personnel management field is that the office boy can become the president because all paths to the top are equal. The truth is different: each company has a preferred route to the top executive office and the statistics bear it out. A young man specializing in marketing is more likely to become the president than one specializing in accounting. In this sense, industry is no worse and no better than the military, in which it is widely perceived that certain routes lead to general officer rank more often than others. This is not a phenomenon only of the military and industrial management systems. It is a product of our society and quite possibly an ingrained human trait that cannot be completely eliminated in any system in which large numbers of human beings must work together.

Another persistent view is that industry retention rates for its managerial personnel are superior to those of the military. This is not the case. Evidence shows that in the first five years of his employment as a prospective manager or officer, young men leave at approximately the same rates. In other words, in the first five years

of employment, industry loss rates are the same as military loss rates with, if anything, the graduates of the military academies and the Officer Candidate Course graduates having higher retention rates than in industry. The interesting hypothesis can be drawn that loss rates are independent of the career young college graduates choose for themselves and are really a function of the maturing process. It appears that a given percent (and the data show this to be about 50 percent) realize, for whatever reason, that they have made a poor initial job choice.

In the case of middle management, the available data indicate that retention rates are probably similar. Once a man has made a career choice after five years he is willing to give it the college try and stay on until he either "succeeds" or becomes eligible for an early retirement when he can strike out at a second career. The total compensation package is an important incentive.

The image exists that industry is more ruthless in cleaning out its deadwood than the military: a cold fish-eyed boss who considers only the balance sheet and the efficiency of the firm relentlessly fires those who do not produce. Data are extremely scarce but such as do exist directly contradict this picture. There is an almost pathological reluctance of one manager to fire another. Quite possibly this is a case of the golden rule. Whatever the reason, the available data show that, except for a very few cases "for cause," managers who are marginally satisfactory are kept on by the firm or "shelved" somewhere doing unimportant jobs. The factor that causes any change is a severe change in the firm's business fortunes. If business falls off dramatically either because of a depression or competition, then the firm will clean out its deadwood. In contradistinction to this haphazard process, the military system is extremely formal, legalized by Congressional legislation, and is a case of up-or-out. No system, of course, will eliminate all marginal personnel.

The belief that industry uses lateral entry of personnel extensively to fill its managerial vacancies is not totally correct,

and is false insofar as the large and giant industrial firms are concerned. The historical record is clear that promotion from within is the preferred method for the giant industrial firms and that they pride themselves on their ability to produce their own managers by whatever system they have adopted. The same is true of the large companies. In most cases, these giant and large companies have some type of recruiting system which brings in potential managers, and then by processes which are generally different for each company these "trainees" are developed and carefully watched at each point in their career much in the same way that the military handles its officers. There are industry reports, schooling, job rotation programs, and the like. Finally, as promotion opportunities occur, personnel are moved into the slots from within the firm. The exception to this general rule is in the case of the highest executive positions, where there is accumulating evidence to indicate that firms will go outside their own organization to hire chief executives, who as a class think of themselves as a commodity for sale to the highest bidder. This exceptional circumstance of the lateral entry of the chief executive is the equivalent of bringing in a general officer from civilian life, which does not occur in the military services any longer. As late as the Spanish-American War, however, President McKinley appointed generals directly from civilian life, both to heal the wounds of the Civil War and to strengthen his political hold on the electoral votes of the southern states.

Another exception to the lateral entry rule practiced by both industry and the services is to acquire specialized skills necessary for certain staff type jobs. Thus in the military it is common practice to bring doctors of medicine, clergymen, and veterinarians directly into the officer corps and give them a rank that is based on their experience in their own profession. Industry follows the same practice with respect to needed staff specialists, but their requirements are generally for particular scientific skills.

One other belief is that industry's assignments for its managers are much more stable than in the military. There was a new term

coined after the Korean War to describe the phenomenon by which officers were being reassigned six to nine months after reaching an assignment. The term was personnel turbulence. It was widely believed at the time, and may still be, that industrial assignments carried greater stability and permanence. This cannot be substantiated from the available data. If anything, the data show that turbulence is a product of the widespread character of our large industries and of our armed forces. Deaths, retirements, sickness, and resignations create vacancies which result in a cascading round of changes throughout the entire managerial structure and the officer corps.

We end this study with the old cliché that those who do not learn from history are doomed to repeat it. Almost all the ideas one hears as being new have at one time or another been tried. Today we hear about movement to a salary system for the military--it was apparently tried for generals in 1802 and for some reason, unknown, was found wanting. History demonstrates in both the military and industry that absence of fixed criteria for retirement has inevitably produced stagnation, high resignation rates, and in the end failure in battle or in bankruptcy. Today the trend is toward no fixed retirement age--the situation at the beginning of our history. Similar problems recede and return until in the end the cliché seems proven. Yet there is hope: a young man of today with a knowledge of history would have to conclude that there is more equality of opportunity and more concern with personnel problems and the proper management of the personnel resource than ever before. That is a positive note on which to end.

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→ This study provides perspective on the debate over personnel and compensation policies by documenting the evolution of military officer personnel management policies from Colonial times to the present. Emphasis is placed on the provision of the "required" number of properly trained officers during both war and peace. The historical development of a managerial class in industry is also examined, partially because personnel practices of business firms have been held up as examples of efficiency for the services. This is shown to have little basis in fact. The evolution of the military officer and his counterpart in industry is traced through six historical periods. ↗

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